FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Union Carbide Corporation

AUTHORIZING THE OPERATION OF

L.P. Polyethylene & Catalyst Units
Industrial Organic Chemicals

LOCATED AT

Calhoun County, Texas

Latitude 28° 30' 59" Longitude 96° 46' 5"

Regulated Entity Number: RN102181526

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O2032 Issuance Date: _____

_____

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

E. Emission units subject to 40 CFR Part 63, Subpart FFFF as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.890 which incorporates the 40 CFR Part 63 Subpart by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

B. Title 30 TAC § 101.3 (relating to Circumvention)

C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

H. Title 30 TAC § 101.221 (relating to Operational Requirements)

I. Title 30 TAC § 101.222 (relating to Demonstrations)

J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

(i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(1)(E)

(iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

(iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation

on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)

(iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions

outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader

C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)

(iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but

no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).

F. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: "Storage of Volatile Organic Compounds," the permit holder shall comply with the requirements of 30 TAC § 115.112(c)(1).

5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

6. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 61.05 (relating to Prohibited Activities)

B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)

C. Title 40 CFR § 61.09 (relating to Notification of Start-up)

D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)

E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)

F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)

G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)

H. Title 40 CFR § 61.15 (relating to Modification)

I. Title 40 CFR § 61.19 (relating to Circumvention)

7. For facilities where total annual benzene quantity from waste is less than 1 megagram per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(5)(i) - (ii), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures

B. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)

C. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)

D. Title 40 CFR § 61.357(a), and (b) (relating to Reporting Requirements)

8. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

9. For miscellaneous chemical process facilities subject to maintenance wastewater requirements as specified in 40 CFR § 63.2485, Table 7, the permit holder shall comply with the requirements of 40 CFR § 63.105 (relating to Maintenance Wastewater Requirements) (Title 30 TAC Chapter 113, Subchapter C, § 113.890 incorporated by reference).

10. For the transfer of site remediation materials subject to 40 CFR Part 63, Subpart GGGGG off-site to another facility, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1160 incorporated by reference):

A. Title 40 CFR § 63.7936(a), for the transfer of site remedation materials

B. Title 40 CFR § 63.7936(b)(1), for transfer to a landfill or land disposal unit

C. Title 40 CFR § 63.7936(b)(2), for transfer to a facility subject to 40 CFR Part 63, Subpart DD

D. Title 40 CFR § 63.7936(b)(3), (b)(3)(i) - (iv), for transfer to a facility managing the site remedation material according to the requirements of 40 CFR Part 63, Subpart GGGGG

11. For containers managing remediation materials subject to 40 CFR Part 63, Subpart GGGGG, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.1160 incorporated by reference):

A. Title 40 CFR § 63.922(b)(1) - (3), (c), (d), (d)(1) - (5), (e), and (f), (f)(1) - (4) (relating to Standards - Container Level 1 Controls)

B. Title 40 CFR § 63.923(b)(1) - (3), (c), (d), (d)(1) - (5), (e), and (f), (f)(1) - (4) (relating to Standards - Container Level 2 Controls)

C. Title 40 CFR § 63.924(b)(1) - (2), (c)(1), and (d) (relating to Standards - Container Level 3 Controls)

D. Title 40 CFR § 63.925(a)(1) - (8), and (b)(1) - (3) (relating to Test Methods and Procedures)

E. Title 40 CFR § 63.926(a)(1) - (3) (relating to Inspection and Monitoring Requirements)

F. Title 40 CFR § 63.7901(b) and (b)(1), for initial demonstration of compliance

G. Title 40 CFR § 63.7901(b)(2), for initial demonstration of compliance

H. Title 40 CFR § 63.7901(c), (c)(1), and (c)(2), for initial demonstration of compliance

I. Title 40 CFR § 63.7901(d), and (d)(1) - (4), for initial demonstration of compliance

J. Title 40 CFR § 63.7901(e), (e)(1), and (e)(2), for initial demonstration of compliance

K. Title 40 CFR § 63.7902(b), (b)(1), and (b)(2), for inspection and monitoring

L. Title 40 CFR § 63.7903(b) and (b)(1), for continuous demonstration of compliance

M. Title 40 CFR § 63.7903(b)(2), (b)(2)(i), (b)(2)(ii), for continuous demonstration of compliance

N. Title 40 CFR § 63.7903(c)(4), (c)(4)(i), and (c)(4)(ii), for continuous demonstration of compliance

O. Title 40 CFR § 63.7903(d)(5), (d)(5)(i), and (d)(5)(ii), for continuous demonstration of compliance

P. Title 40 CFR § 63.7903(e)(1) - (3), for continuous demonstration of compliance

Q. Title 40 CFR § 63.7952(c), for recordkeeping

Additional Monitoring Requirements

12. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

    A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

E. The permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:

(i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or

(ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.

F. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

13. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more

frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

14. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

    A. Are incorporated by reference into this permit as applicable requirements

    B. Shall be located with this operating permit

    C. Are not eligible for a permit shield

15. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

16. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144.

    A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.

    B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

17. The permit holder shall comply with the following requirements for Air Quality Standard Permits:

    A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit

    B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit

Compliance Requirements

18. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

19. Use of Discrete Emission Credits to comply with the applicable requirements:

    A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

        (i) Title 30 TAC Chapter 115

        (ii) Title 30 TAC Chapter 117

        (iii) If applicable, offsets for Title 30 TAC Chapter 116

        (iv) Temporarily exceed state NSR permit allowables

    B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

        (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

        (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

        (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

Risk Management Plan

20. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

21. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.

    A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

22. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

New Source Review Authorization References

Applicable Requirements Summary

Note: A "none" entry may be noted for some emission sources in this permit's "Applicable Requirements Summary" under the heading of "Monitoring and Testing Requirements" and/or "Recordkeeping Requirements" and/or "Reporting Requirements." Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (§ 122.144), Reporting Terms and Conditions (§ 122.145), and Compliance Certification Terms and Conditions (§ 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP-MCPU	CHEMICAL MANUFACTURING PROCESS	PROFINSHG1, PROFINSHG2, PROFINSHG3, PROLP1R, PROMATRCV, PROMATRVG1, PROMATRVG2, PROREACTG1, PROREACTG2, PROREACTG3, PRORMC21-1, PRORMC22-2, PRORMC4, PRORMC5, PRORMHEXA, PRORMHEXE, PROSTOREG1, PROSTOREG2, PROSTOREG3	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
PROCAT	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
GRP-CAM	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	245, 510, 511, 512, 513, 595, 725, 768, A-405, A-406, A-409	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VNT1	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1007, 1009, 1043, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1127,	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		1128, 1130, 1143D, 1152A, 1152B, 1158A, 1158B, 1159A, 1159B, 1161, 230, 232, 248, 351, 436, 441, 468, 469, 470, 483, 484, 485, 488, 489, 490, 491, 492, 493, 494, 495, 496, 535, 535 L, 707, 708H, 709H, 712H, 761 H, 762 H, 771, A-227, A-233			
GRP-VNT2	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1044, 1045, 1046, 1047, 1048, 1052, 191, 192, 193, 194, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 591, 594, 720, 721, 772	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VNT2	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1044, 1045, 1046, 1047, 1048, 1052, 191, 192, 193, 194, 196, 197, 198, 199,	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		200, 201, 202, 203, 204, 205, 206, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 591, 594, 720, 721, 772			
GRP-VNT2CAM	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1053, 504, 505, 506, 507, 508, 509, 722, 723, 724	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VNT2CAM	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1053, 504, 505, 506, 507, 508, 509, 722, 723, 724	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VNT1100	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VNT1100	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
VNT246	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VNT246	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
VNT705	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VNT705	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
1100	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
1100	FLARES	N/A	60A-AIRASST	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = Air-assisted
1100	FLARES	N/A	60A-NOASST	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = Non-assisted, FLARE EXIT VELOCITY = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., HEATING VALUE OF GAS = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
1100	FLARES	N/A	63A-AIRASST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Air assisted
1100	FLARES	N/A	63A-NOASST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Non-assisted, FLARE EXIT VELOCITY = Flare exit velocity is greater than or equal to 60 ft/s (18.3

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					m/sec) but less than 400 ft/s (122 m/sec)., HEATING VALUE OF GAS = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
246	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
246	FLARES	N/A	63A	40 CFR Part 63, Subpart A	FLARE EXIT VELOCITY = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
246	FLARES	N/A	63A-HPIIVENT	40 CFR Part 63, Subpart A	FLARE EXIT VELOCITY = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., HEATING VALUE OF GAS = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
705	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
705	FLARES	N/A	60A-AIRASST	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = Air-assisted
705	FLARES	N/A	60A-NOASST	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = Non-assisted, FLARE EXIT VELOCITY = Flare exit velocity is greater than or

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., HEATING VALUE OF GAS = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
705	FLARES	N/A	63A-AIR ASSIST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Air assisted
705	FLARES	N/A	63A-NO ASSIST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Non-assisted, FLARE EXIT VELOCITY = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., HEATING VALUE OF GAS = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	NSPS DDD CONST/MODIF DATE = AFTER SEPTEMBER 30, 1987 AND ON/BEFORE JANUARY 10, 1989
LPPEFUG	FUGITIVE EMISSION	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	UNITS				
PRECLOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
PROFINSHG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROFINSHG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRCV	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRCV	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRVG1	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRVG1	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRVG2	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROMATRVG2	POLYMER MANUFACTURING	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	PROCESSES				
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3	40 CFR Part 60, Subpart DDD	No changing attributes.
PRORMC22-2	POLYMER MANUFACTURING PROCESSES	N/A	60DDD	40 CFR Part 60, Subpart DDD	No changing attributes.
PRORMHEXA	POLYMER MANUFACTURING PROCESSES	N/A	60DDD	40 CFR Part 60, Subpart DDD	No changing attributes.
PROSTOREG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD	40 CFR Part 60, Subpart DDD	No changing attributes.
530	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK2	STORAGE TANKS/ VESSELS	C-3520	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK3	STORAGE TANKS/ VESSELS	C-3084, C-3086, C-3091, C-3092	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP-TK4	STORAGE TANKS/ VESSELS	LP1RCIC5TK, LP1RIC51DT, LP1RRC5TK, LP1RRC6TK	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK5	STORAGE TANKS/ VESSELS	LP1RC4BULT, LP1RC6BULT	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
LP1RRICATK	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
LP1RTFT2TK	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-MCPU	PRO	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2440(a) § 63.2450(a) § 63.2450(l)	This subpart applies to each miscellaneous organic chemical manufacturing affected source.	§ 63.2445(d)	§ 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) § 63.2525(e) § 63.2525(e)(2) § 63.2525(e)(3) [G]§ 63.2525(e)(4) § 63.2525(f) § 63.2525(j)	§ 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2515(a) § 63.2515(b)(1) § 63.2515(c) § 63.2520(a) [G]§ 63.2520(b) [G]§ 63.2520(c) [G]§ 63.2520(d) § 63.2520(e) § 63.2520(e)(1) [G]§ 63.2520(e)(10) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5) § 63.2520(e)(5)(i) [G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(5)(iv) § 63.2520(e)(6) § 63.2520(e)(7) § 63.2520(e)(9)
PROCAT	EP	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2440(a) § 63.2450(a) § 63.2450(l) § 63.2460(c)(1)	This subpart applies to each miscellaneous organic chemical manufacturing affected source.	§ 63.2445(d) § 63.2460(c)(2)(v)	§ 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) § 63.2525(e) § 63.2525(e)(2) § 63.2525(e)(3) [G]§ 63.2525(e)(4) § 63.2525(f) § 63.2525(j)	§ 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2460(c)(1) § 63.2515(a) § 63.2515(b)(1) § 63.2515(c) § 63.2520(a) [G]§ 63.2520(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.2520(c) [G]§ 63.2520(d) § 63.2520(e) § 63.2520(e)(1) [G]§ 63.2520(e)(10) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5) § 63.2520(e)(5)(i) [G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(5)(iv) § 63.2520(e)(6) § 63.2520(e)(7) § 63.2520(e)(9)
PROCAT	EP	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2460(a) § 63.11(b) § 63.2450(b) § 63.2460(a)-Table 2.1.c § 63.2460(b) § 63.2460(c)(7) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.997(b)(1) § 63.997(c)(3)	You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in §63.2460(b) and (c).	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.2460(c)(2)(i) § 63.2460(c)(2)(ii) § 63.2460(c)(2)(vi) § 63.2460(c)(3) § 63.2460(c)(3)(i) § 63.2460(c)(4) § 63.2460(c)(6) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) § 63.987(c) § 63.997(b) § 63.997(b)(1) § 63.997(c)(2) § 63.997(c)(3)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.2460(c)(3)(ii) § 63.2460(c)(6) § 63.2525(g) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(c) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.2460(c)(3)(i) § 63.997(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) [G]§ 63.999(c)(2) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 63.997(c)(3)(i) § 63.997(c)(3)(ii)		
GRP-CAM	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See CAM Summary	None	None
GRP-VNT1	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
GRP-VNT2	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRP-VNT2	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
GRP-VNT2CAM	EP	R1111	OPACITY	30 TAC Chapter 111, Visible	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not	[G]§ 111.111(a)(1)(F) ** See CAM	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Emissions		exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	Summary		
GRP-VNT2CAM	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
VNT1100	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2)	None
VNT1100	EP	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.997(b)(1) § 63.997(c)(3)	For each Group 1continuous process vent, the owner or operator must reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare.	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) § 63.987(c) § 63.997(b) § 63.997(b)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(c) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.997(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) [G]§ 63.999(c)(2) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
VNT246	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2)	None
VNT246	EP	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.987(b)(1) § 63.987(b)(3) [G]§ 63.997(c)(1) § 63.997(c)(3)	For each Group 1continuous process vent, the owner or operator must reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare.	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) [G]§ 63.987(b)(3)(i) § 63.987(b)(3)(ii) § 63.987(b)(3)(iii) § 63.987(b)(3)(iv) § 63.987(c) § 63.997(a) [G]§ 63.997(c)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(b)(1) § 63.987(c) § 63.998(a)(1) [G]§ 63.998(a)(1)(i) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.987(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2) § 63.999(b)(5) § 63.999(c)(1) [G]§ 63.999(c)(2) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)
VNT705	EP	R5121	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2)	None
VNT705	EP	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b)	For each Group 1continuous process vent, the owner or operator must reduce	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.997(b)(2)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.997(b)(2) § 63.997(b)(3) § 63.997(c)(3)	emissions of total organic HAP by venting emissions through a closed vent system to a flare.	[G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) § 63.987(c) § 63.997(b) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	§ 63.983(b) [G]§ 63.983(d)(2) § 63.987(c) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) [G]§ 63.999(c)(2) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)
1100	EU	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
1100	CD	60A-AIRASST	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
1100	CD	60A-NOASST	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
1100	CD	63A-AIRASST	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(8)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5)	None	None
1100	CD	63A-NOASST	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
246	EU	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
246	CD	63A	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
246	CD	63A-HPIIVEN	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1)	Flares shall be designed and operated with no visible	§ 63.11(b)(4) § 63.11(b)(5)	None	None

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		T			§ 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(ii)	emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(7)(i)		
705	EU	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
705	CD	60A-AIRASST	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
705	CD	60A-NOASST	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None
705	CD	63A-AIR ASSIST	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(8)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be	§ 63.11(b)(4) § 63.11(b)(5)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						used.			
705	CD	63A-NO ASSIST	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								§ 60.486(j)	
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-5 for sampling connection systems.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.562-2(b) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b)	Comply with the requirements in as stated in §60.482-8 for pumps in	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c)

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					[G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	heavy-liquid service.	[G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for valves in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-5 for sampling connection systems.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)				§ 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.562-2(b) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for pumps in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for valves in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	60DDD-	VOC/TOC	40 CFR Part 60,	§ 60.562-2(a)	Comply with the	§ 60.485(a)	[G]§ 60.486(a)	§ 60.487(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		2		Subpart DDD	§ 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	requirements in as stated in §60.482-10 for flares.	[G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	[G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2480(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
PRECLOAD	EU	R5211	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(b)(1) § 115.212(b)(1)(A) § 115.212(b)(3)(A) § 115.212(b)(3)(A)(i) § 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.212(b)(3)(E) § 115.214(b)(1)(B) § 115.214(b)(1)(C) § 60.18	In Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis and Victoria Counties, vapors caused by the loading of VOC with a TVP of 1.5 psia or greater must be controlled by one of the following.	§ 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(A)(ii) § 115.214(b)(1)(A)(iii) § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) [G]§ 115.215(3) § 115.215(4) § 115.215(5) § 115.215(8) § 115.215(9) § 115.216(1) § 115.216(1)(B)	§ 115.216 § 115.216(1) § 115.216(1)(B) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PROFINSHG3	PRO	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROFINSHG3	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PROMATRCV	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRCV	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	determining which continuous emissions to control as specified.	§ 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG1	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG1	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG2	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k)

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						/replacement, the vent stream is exempted.	§ 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.565(g) § 60.565(j)	§ 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG2	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROREACTG3	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROREACTG3	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PROREACTG3	PRO	60DDD-3	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PRORMC22-2	EU	60DDD	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PRORMHEXA	EU	60DDD	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROSTOREG3	PRO	60DDD	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						(1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).			§ 60.565(k)(7)
530	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK2	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK3	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK4	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device	** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						specified in Table I(b).			
GRP-TK5	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
LP1RRICATK	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
LP1RTFT2TK	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None

Additional Monitoring Requirements

CAM Summary

Unit/Group/Process Information	
ID No.: GRP-CAM	
Control Device ID No.: 245	Control Device Type: Fabric Filter
Control Device ID No.: 510	Control Device Type: Fabric Filter
Control Device ID No.: 511	Control Device Type: Fabric Filter
Control Device ID No.: 512	Control Device Type: Fabric Filter
Control Device ID No.: 513	Control Device Type: Fabric Filter
Control Device ID No.: 595	Control Device Type: Fabric Filter
Control Device ID No.: 725	Control Device Type: Fabric Filter
Control Device ID No.: 768	Control Device Type: Fabric Filter
Control Device ID No.: A-405	Control Device Type: Fabric Filter
Control Device ID No.: A-406	Control Device Type: Fabric Filter
Control Device ID No.: A-409	Control Device Type: Fabric Filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per day	
Averaging Period: n/a	
Deviation Limit: Visible Emissions	
CAM Text: Visible emissions observations shall be made and recorded in accordance with the requirements specified in 40 CFR § 64.7(c). Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.	

CAM Summary

Unit/Group/Process Information	
ID No.: GRP-VNT2CAM	
Control Device ID No.: 1053	Control Device Type: Fabric Filter
Control Device ID No.: 504	Control Device Type: Fabric Filter
Control Device ID No.: 505	Control Device Type: Fabric Filter
Control Device ID No.: 506	Control Device Type: Fabric Filter
Control Device ID No.: 507	Control Device Type: Fabric Filter
Control Device ID No.: 508	Control Device Type: Fabric Filter
Control Device ID No.: 509	Control Device Type: Fabric Filter
Control Device ID No.: 722	Control Device Type: Fabric Filter
Control Device ID No.: 723	Control Device Type: Fabric Filter
Control Device ID No.: 724	Control Device Type: Fabric Filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per day	
Averaging Period: n/a	
Deviation Limit: Visible emissions or alternate determination consistent with Test Method 9.	
CAM Text: Visible emissions observations shall be made and recorded in accordance with the requirements specified in 40 CFR § 64.7(c). Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 530	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: Fill-pipe must be repaired (if necessary) prior to filling the tank	
Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 530	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Liquid Level	
Minimum Frequency: Once per day	
Averaging Period: n/a	
Deviation Limit: Fill-pipe must be submerged at all times	
Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-TK2	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-TK3	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-TK4	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-TK5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VNT2	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity in excess of 20 percent.	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: LP1RRICATK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: LP1RTFT2TK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: Fill-pipe must be repaired (if necessary) prior to filling the tank.	
Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: LP1RTFT2TK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Liquid Level	
Minimum Frequency: Once per day	
Averaging Period: n/a	
Deviation Limit: Fill-pipe must be submerged at all times.	
Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.	

New Source Review Authorization References

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX118M4	Issuance Date: 02/11/2004
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 1567	Issuance Date: 11/07/2013
Authorization No.: 18773	Issuance Date: 01/31/2013
Authorization No.: 3639	Issuance Date: 05/15/2006
Authorization No.: 6141A	Issuance Date: 07/18/2013
Authorization No.: 6361	Issuance Date: 02/03/2011
Authorization No.: 78664	Issuance Date: 04/28/2006
Authorization No.: 80466	Issuance Date: 12/20/2006
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 03/14/1997
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 34	Version No./Date: 09/12/1989
Number: 82	Version No./Date: 04/05/1995
Number: 106	Version No./Date: 05/04/1994

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1007	CATALYST BIN 31 LOADING	1567, PSDTX118M4
1009	CAT. CONTAINER LOADING: Y352	1567, PSDTX118M4
1043	G1750 SAMPLE PUGER	3639, PSDTX118M4
1044	SOUTH ETHYLENE SIEVE VENT	1567, PSDTX118M4
1045	WEST ETHYLENE SIEVE VENT	1567, PSDTX118M4
1046	ISOPENTANE BEDS	1567, PSDTX118M4
1047	BUTENE BEDS	1567, PSDTX118M4
1048	HEXENE BEDS	1567, PSDTX118M4
1052	#1 GRANULAR MAKE BAGHOUSE	6141A, PSDTX118M4
1053	#2 GRANULAR MAKE BAGHOUSE	6141A, PSDTX118M4
1079	CATALYST WASH POT	3639, PSDTX118M4
1080	CATALYST WASH POT	3639, PSDTX118M4
1081	CATALYST WASH POT	1567, PSDTX118M4
1082	CATALYST WASH POT	1567, PSDTX118M4
1083	CATALYST WASH POT	1567, PSDTX118M4
1084	CATALYST WASH POT	1567, PSDTX118M4
1085	CATALYST WASH POT	1567, PSDTX118M4
1086	CATALYST WASH POT	6141A, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1100	EPR FLARE	6361, PSDTX118M4
1127	G-2 BLENDER BLOW TANK FILTER	1567, PSDTX118M4
1128	G-4 BLENDER BLOW TANK FILTER	1567, PSDTX118M4
1130	ME DRUM LINER WASHING	6361, PSDTX118M4
1143D	CONTAINER LOADING FILTER	6361, PSDTX118M4
1152A	PRODUCT CONTAINER VENT	1567, PSDTX118M4
1152B	PRODUCT CONTAINER VENT	1567, PSDTX118M4
1158A	THF FILTER	1567, PSDTX118M4
1158B	THF FILTER	1567, PSDTX118M4
1159A	THF FILTER	1567, PSDTX118M4
1159B	THF FILTER	1567, PSDTX118M4
1161	SILICA DEHYDRATOR	106.262/03/14/1997, PSDTX118M4
191	UNIT MAKE BIN 841	3639, PSDTX118M4
192	UNIT MAKE BIN 842	3639, PSDTX118M4
193	UNIT MAKE BIN 843	3639, PSDTX118M4
194	UNIT MAKE BIN 844	3639, PSDTX118M4
196	UNIT MAKE BIN 846	3639, PSDTX118M4
197	UNIT MAKE BIN 847	3639, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
198	UNIT MAKE BIN 848	3639, PSDTX118M4
199	UNIT MAKE BIN 851	3639, PSDTX118M4
200	UNIT MAKE BIN 852	3639, PSDTX118M4
201	UNIT MAKE BIN 853	3639, PSDTX118M4
202	UNIT MAKE BIN 854	3639, PSDTX118M4
203	UNIT MAKE BIN 855	3639, PSDTX118M4
204	UNIT MAKE BIN 856	3639, PSDTX118M4
205	UNIT MAKE BIN 857	3639, PSDTX118M4
206	UNIT MAKE BIN 858	3639, PSDTX118M4
230	G-5 BLENDER BLOW TANK FILTER	6361
232	CATALYST BINS 16-20 FILTER	6361, PSDTX118M4
234	BLOCK 25 SILO 101 BAGHOUSE	1567
235	BLOCK 25 SILO 102 BAGHOUSE	1567
236	BLOCK 25 SILO 103 BAGHOUSE	1567
237	BLOCK 25 SILO 104 BAGHOUSE	1567
238	BLOCK 25 SILO 105 BAGHOUSE	1567
239	BLOCK 25 SILO 106 BAGHOUSE	1567
240	BLOCK 25 SILO 107 BAGHOUSE	1567

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
241	BLOCK 25 SILO 201 BAGHOUSE	1567
242	BLOCK 25 SILO 202 BAGHOUSE	1567
243	BLOCK 25 SILO 203 BAGHOUSE	1567
244	BLOCK 25 204 BAGHOUSE	1567
245	BLOCK 25 Y-SYSTEM BAGHOUSE	1567, PSDTX118M4
246	LARGE FLARE	1567, 18773, 3639, 6141A, 6361, PSDTX118M4
248	G5 SEAL OIL SYSTEM VENT	1567
351	G1750 SEAL OIL SYSTEM VENT	3639
387	SILO 401 BAGHOUSE	1567
388	SILO 402 BAGHOUSE	1567
389	SILO 403 BAGHOUSE	1567
390	SILO 404 BAGHOUSE	1567
391	SILO 405 BAGHOUSE	1567
392	SILO 406 BAGHOUSE	1567
393	SILO 301 BAGHOUSE	1567
394	SILO 302 BAGHOUSE	1567
395	SILO 303 BAGHOUSE	1567
396	SILO 304 BAGHOUSE	1567

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
397	SILO 305 BAGHOUSE	1567
398	SILO 306 BAGHOUSE	1567
399	BLOCK 25 SILO 205 BAGHOUSE	1567
400	BLOCK 25 SILO 206 BAGHOUSE	1567
436	SEAL POT VENT	6361, PSDTX118M4
441	G1750 CAT. FEEDER VENT	3639
468	CATALYST BIN 22 FILTER	6361
469	CATALYST BIN 23 FILTER	6361
470	CATALYST BIN 24 FILTER	6361
483	G-3 BLENDER BLOW TANK FILTER	6141A
484	CATALYST BIN 25 FILTER	6141A
485	CATALYST BIN 26 FILTER	6141A
488	NORTH CATALYST BLOW TANK	6141A
489	CENTER CATALYST BLOW TANK	6141A
490	SOUTH CATALYST BLOW TANK	6141A
491	G1 CATALYST FEEDER FILTER	6141A, PSDTX118M4
492	G1 CATALYST FEEDER FILTER	6141A, PSDTX118M4
493	G2 CATALYST FEEDER FILTER	6141A, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
494	G2 CATALYST FEEDER FILTER	6141A, PSDTX118M4
495	G1 SEAL OIL SYSTEM VENT	6141A, PSDTX118M4
496	G2 SEAL OIL SYSTEM VENT	6141A
504	RESIN BIN 101	6141A, PSDTX118M4
505	RESIN BIN 102	6141A, PSDTX118M4
506	RESIN BIN 103	6141A, PSDTX118M4
507	RESIN BIN 201	6141A, PSDTX118M4
508	RESIN BIN 202	6141A, PSDTX118M4
509	RESIN BIN 203	6141A, PSDTX118M4
510	#1 TRANSFER CONVEYOR SEPARATOR	6141A, PSDTX118M4
511	#2 TRANSFER CONVEYOR SEPARATOR	6141A, PSDTX118M4
512	#1 LOADING CONVEYOR SEPARATOR	6141A, PSDTX118M4
513	#2 LOADING CONVEYOR SEPARATOR	6141A, PSDTX118M4
530	THF TANK	1567, PSDTX118M4
535 L	BIN 7117 LOADING FILTER	1567
535	BIN 7117 FILTER	1567, PSDTX118M4
591	P1 FEED HOPPER BAGHOUSE	6141A
594	PELLET DRYER VENT	6141A, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
595	P1 ELUTRIATOR FILTER	6141A, PSDTX118M4
705	SMALL FLARE	1567, 18773, 6141A, PSDTX118M4
707	G3 SEAL OIL SYSTEM VENT	18773, PSDTX118M4
708H	CATALYST TRANSFER TANK FILTER	18773, PSDTX118M4
709H	CATALYST TRANSFER TANK FILTER	18773, PSDTX118M4
712H	CATALYST VENT FILTER	18773, PSDTX118M4
720	P3 MIX/FEED HOPPER BAGHS.	18773, PSDTX118M4
721	P3 PELLET DRYER	18773, PSDTX118M4
722	RESIN BIN 301	18773, PSDTX118M4
723	RESIN BIN 302	18773, PSDTX118M4
724	RESIN BIN 303	18773, PSDTX118M4
725	PELLET LOADING FILTER	18773, PSDTX118M4
761 H	CATALYST BIN 29 FILTER	6141A, PSDTX118M4
762 H	CATALYST BIN 30 FILTER	6141A, PSDTX118M4
768	DEDICATED TRANSFER SYSTEM	6141A, PSDTX118M4
771	CATALYST BLOW TANK	6141A, PSDTX118M4
772	NO 3 ACTIVATOR FILTER	6361, PSDTX118M4
A-227	#1 ACTIVATOR FILTER	6361, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
A-233	G-5 CATALYST FEEDER VENT	1567, PSDTX118M4
A-405	LP1R BLND BIN BAGHOUSE #1	1567, PSDTX118M4
A-406	LP1R BLND BIN BAGHOUSE #2	1567, PSDTX118M4
A-409	LP1R BLND BIN BAGHOUSE #3	1567, PSDTX118M4
C-3084	SPENT ISOPENTANE TANK	6361, PSDTX118M4
C-3086	WASTE TANK	6361, PSDTX118M4
C-3091	ISOPENTANE TANK	6361, PSDTX118M4
C-3092	ETHANOL TANK	6361, PSDTX118M4
C-3520	THF SOLVENT TANK	1567, PSDTX118M4
LP1RC4BULT	BUTENE STORAGE BULLET	1567, PSDTX118M4
LP1RC6BULT	HEXENE TANK	1567, PSDTX118M4
LP1RCIC5TK	CRUDE ISOPENTANE TANK	82/04/05/1995, PSDTX118M4
LP1RIC51DT	ISOPENTANE DUMP TANK #1	1567, PSDTX118M4
LP1RRC5TK	REFINED ISOPENTANE TANK	82/04/05/1995, PSDTX118M4
LP1RRC6TK	RINED HEXENE TANK #2	1567, PSDTX118M4
LP1RRICATK	HEXANE TANK	18773, PSDTX118M4
LP1RTFT2TK	CO-CATALYST TANK #2	6361, PSDTX118M4
LPPEFUG	APPLICATION AREA FUGITIVES	1567, 18773, 3639, 6141A, 6361, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
PRECLOAD	PRECURSOR WASTE LOADING	6361, PSDTX118M4
PROCAT	CATALYST FACILITIES	1567, 18773, 6141A, 6361
PROFINSHG1	FINISHING SECTION: LP-2 G1	6141A, PSDTX118M4
PROFINSHG2	FINISHING SECTION: LP-2 G2	6141A, PSDTX118M4
PROFINSHG3	FINISHING SECTION: LP-2 G3	18773, PSDTX118M4
PROLP1R	LP-1 REACTION FACILITIES	1567, 3639
PROMATRCV	RECOVERY SECTION: LP-2 G1/G2	6141A, PSDTX118M4
PROMATRVG1	RECOVERY SECTION: LP-2 G1	6141A, PSDTX118M4
PROMATRVG2	RECOVERY SECTION: LP-2 G2	6141A, PSDTX118M4
PROREACTG1	REACTION SECTION: LP-2 G1	6141A, PSDTX118M4
PROREACTG2	REACTION SECTION: LP-2 G2	6141A, PSDTX118M4
PROREACTG3	REACTION SECTION: LP-2 G3	18773, PSDTX118M4
PRORMC21-1	LP1ETHYLENE PREP. SECT. NO. 1	1567, PSDTX118M4
PRORMC22-2	LP2 ETHYLENE PREP. SECT. NO. 2 AT LP-2	1567, PSDTX118M4
PRORMC4	PREPARATION SECTION: BUTENE	1567, 6141A, PSDTX118M4
PRORMC5	PREPARATION SECTION: ISOPENTANE	1567, PSDTX118M4
PRORMHEXA	PREPARATION SECTION: HEXANE	18773, PSDTX118M4
PRORMHEXE	PREPARATION SECTION: HEXENE	1567, PSDTX118M4

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
PROSTOREG1	STORAGE SECTION: LP-2 G1	6141A, PSDTX118M4
PROSTOREG2	STORAGE SECTION: LP-2 G2	6141A, PSDTX118M4
PROSTOREG3	STORAGE SECTION: LP-2 G3	18773, PSDTX118M4
VNT1100	VENT HEADER FOR FLARE 1100	6361, PSDTX118M4
VNT246	VENT HEADER FOR FLARE 246	1567, 18773, 3639, 6141A, 6361, PSDTX118M4
VNT705	VENT HEADER FOR FLARE 705	1567, 18773, 6141A, PSDTX118M4

Appendix A

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
COMS ..... continuous opacity monitoring system
CVS ..... closed-vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
DR ..... Designated Representative
ElP ..... El Paso (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
GF ..... grandfathered
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MMBtu/hr ..... Million British thermal units per hour
MRRT ..... monitoring, recordkeeping, reporting, and testing
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PM ..... particulate matter
ppmv ..... parts per million by volume
PSD ..... prevention of significant deterioration
RO ..... Responsible Official
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table

Permit Number: 3639 and PSDTX118M4			**Issuance Date:** 5/15/2006; Project 116523				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
246	Large Flare	VOC	79.53	87.95	5	2, 5	None
246	Large Flare	NOx	6.93	8.72	5	2, 5	None
246	Large Flare	CO	35.34	44.44	5	2, 5	None
246	Large Flare MSS	VOC	107.89	1.22	5	5	None
246	Large Flare MSS	NOx	11.1	0.12	5	5	None
246	Large Flare MSS	CO	56.57	0.58	5	5	None
441	Mark IV Catalyst Feeder Vent	PM	0.04	0.02	3	3	3
441	Mark IV Catalyst Feeder Vent	VOC	0.02	0.03	None	None	None
347	Unit Analyzer Vents	VOC	0.11	0.46	None	None	None
351	Compressor Seal Oil Degassing Reservoir	VOC	0.2	0.86	None	None	None

Permit Number: 3639 and PSDTX118M4			**Issuance Date:** 5/15/2006; Project 116523				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
766-5	Fugitives (4) (5)	VOC	4.5	19.72	6	6	None
191 to 206	Unit Make Bins	PM	0.13	0.35	3	2, 3	3
191 to 206	Unit Make Bins	VOC	9.90	34.35	None	2	None
1043	Sample Purger	VOC	0.14	0.41	None	None	None
1079	Catalyst Wash Pot. #1	VOC	5.87	0.85	None	4	None
1080	Catalyst Wash Pot #2	VOC	5.87	0.85	None	4	None
1162	Portable Mineral Oil Pot Vent	VOC	0.10	0.01	None	None	None
1178	Seed Bed Vent	PM	3.33	0.26	None	None	None
1223	Cycle Gas Line Fugitives (4) (5)	VOC	0.01	0.06	6	6	None

Footnotes:

(1) Emission point identification – either specific equipment designation or emission point number from plot plan
(2) Specific point source name. For fugitive sources use area name or fugitive source name
(3) VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1
NO_X – total oxides of nitrogen
CO – carbon monoxide
PM – particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} – particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) 1.52 tpy of VOC emissions are authorized via Permit by Rule (PBR) Registration Numbers 32964, 31855, and 42305. These PBRs have not been voided

* Emissions rates are based on and the facilities are limited by the following maximum operating schedule:
Hrs/Day _____ Days/week_____ Weeks/year_____ or Hrs/year 8760
Compliance with annual emission limits is based on a rolling 12-month period

Major NSR Summary Table

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
436	Liquid Catalyst Storage Tank Routine Operations	VOC (5)	114.64	3.53	None	3, 11	None
436	Liquid Catalyst Storage Tank MSS	VOC (5)	1.32	0.01	None	8	None
436F	Fugitives from Liquid Catalyst Tank	VOC (5)	0.49	2.14	9	9	None
467	Catalyst Bin 21	Catalyst Dust (6)	0.12	0.01	2	11	None
468	Catalyst Bin 22	Catalyst Dust (6)	0.12	0.01	2	11	None
468	Catalyst Bin 22	VOC	0.04	0.14	None	11	None
469	Catalyst Bin 23	Catalyst Dust (6)	0.24	0.02	2	11	None
469	Catalyst Bin 23	VOC	0.04	0.14	None	11	None
470	Catalyst Bin 24	Catalyst Dust (6)	0.24	0.02	2	11	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
470	Catalyst Bin 24	VOC	0.04	0.14	None	11	None
1008	Catalyst Bin 32 Loading	Catalyst Dust (6)	0.34	0.05	2	11	None
1010	Catalyst Cylinder Loading	Catalyst Dust (6)	0.14	0.03	2	11	None
1100	EPR Unit Flare	VOC, other	42.33	6.43	5	5, 11	None
1100	EPR Unit Flare	Toluene	0.01	0.01	5	5, 11	None
1100	EPR Unit Flare	Chlorobenzene	3.17	0.60	5	5, 11	None
1100	EPR Unit Flare	Titanium Tetrachloride	0.01	0.01	5	5, 11	None
1100	EPR Unit Flare	Aliphatic Alcohol or Glycol Ethers	0.01	0.01	5	5, 11	None
1100	EPR Unit Flare	n-Hexanol	0.09	0.01	5	5, 11	None
1100	EPR Unit Flare	O-Cresol	0.01	0.01	5	5, 11	None
1100	EPR Unit Flare	NOx	8.11	1.22	5	5, 11	None
1100	EPR Unit Flare	CO	69.54	10.47	5	5, 11	None
1100	EPR Unit Flare	HCl	51.48	9.68	5	5, 11	None
1100	EPR Unit Flare	SO2	0.13	0.02	5	5, 11	None
1140	Fugitives (4) (7)	VOC, other	1.67	7.23	9	9, 11	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1140	Fugitives (4) (7)	Toluene	0.01	0.01	9	9, 11	None
1140	Fugitives (4) (7)	Chlorobenzene	0.86	3.72	9	9, 11	None
1140	Fugitives (4) (7)	O-Cresol	0.11	0.45	9	9, 11	None
1140	Fugitives (4) (7)	Titanium Tetrachloride	0.10	0.42	9	9, 11	None
1140	Fugitives (4) (7)	Aliphatic Alcohol or Glycol Ethers	0.18	0.77	9	9, 11	None
1140	Fugitives (4) (7)	HCl	0.01	0.04	9	9, 11	None
1140	Fugitives (4) (7)	Ethylene Glycol	0.03	0.12	9	9, 11	None
1143	Cylinder Loading Filter	PM10	0.01	0.01	2	11	None
1143	Cylinder Loading Filter	Isopentane	0.08	0.02	None	11	None
1143	Cylinder Loading Filter	Chlorobenzene	0.02	0.01	None	11	None
1144 (4)	Truck Ldg Fugitives	VOC, other	1.93	0.05	9	9, 11	None
1144 (4)	Truck Ldg Fugitives	Toluene	0.01	0.01	9	9, 11	None
1144 (4)	Truck Ldg Fugitives	Chlorobenzene	0.04	0.01	9	9, 11	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1144 (4)	Truck Ldg Fugitives	O-Cresol	0.01	0.01	9	9, 11	None
1144 (4)	Truck Ldg Fugitives	Titanium Tetrachloride	0.01	0.01	9	9, 11	None
1144 (4)	Truck Ldg Fugitives	Aliphatic Alcohol or Glycol Ethers	0.01	0.01	9	9, 11	None
1145	Additive Dump Hopper Filter	PM10	0.01	0.01	2	11	None
1146	Additive Receiver Filter	PM10	0.01	0.05	2	11	None
226	Silica Preheater	Catalyst Dust (6)	0.10	0.02	2	None	None
227	No. 1 Activator	Catalyst Dust (6)	0.01	0.01	2	None	None
227	No. 1 Activator	VOC	7.23	0.99	None	None	None
227	No. 1 Activator	Ammonia	0.30	0.04	None	None	None
228	No. 1 Activator Blow Tank	Catalyst Dust (6)	0.04	0.01	2	None	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
229	Filter Bins 1 through 5	Catalyst Dust (6)	0.14	0.06	2	None	None
230	G5 Blender Blow Tnk	Catalyst Dust (6)	0.12	0.02	2	None	None
	G5 Blender Blow Tnk	VOC	0.02	0.07	None	None	None
231	Filter Bins 11 thru 15	Catalyst Dust (6)	0.09	0.01	2	None	None
232	Filter Bins 16 thru 20	Catalyst Dust (6)	0.13	0.02	2	None	None
232	Filter Bins 16 thru 20	VOC	0.10	0.02	None	None	None
766-3A	G-Mix Fugitives (4)	VOC	1.00	0.57	10	10	None
703	Catalyst Preparation Fugitives (4)	VOC	0.09	0.42	9	9	None
772	No. 3 Activator	Catalyst Dust (6)	0.03	0.01	2	None	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
		VOC	15.80	2.38	None	None	None
773	No. 3 Activator Blow Tank	Catalyst Dust (6)	0.02	0.01	2	None	None
246	Large Poly Flare	VOC	40.51	33.48	5	5	None
246	Large Poly Flare	NOx	2.74	2.20	5	5	None
246	Large Poly Flare	CO	13.97	11.22	5	5	None
246	Large Poly Flare	Ammonia	0.02	0.01	5	5	None
1161	Silica Dehydrator	PM	0.01	0.02	2	None	None
1161	Silica Dehydrator	VOC	0.33	0.10	None	None	None
1130	ME Drum Liner Washing	VOC	2.67	1.98	None	8	None
1055	Silica 958 Bin Filter	Silicon Dioxide Dust (6)	0.01	0.01	2	None	None
533	Catalyst Loading Filter	Silicon Dioxide Dust	0.01	0.01	2	None	None

Permit Number: 6361 and PSDTX118M4			**Issuance Date:** 2/3/2011; Project 157605				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
532	Precursor Fugitives Existing	VOC	0.44	1.95	9	9	None
534H	Bin 53056 Filter	Catalyst Dust (6)	0.01	0.05	2	None	None
536H	Precursor Unit Blowtank	Catalyst Dust (6)	0.01	0.05	2	None	None
536H	Precursor Unit Blowtank	VOC	0.01	0.01	None	None	None
537H	Bin C5392	Catalyst Dust (6)	0.01	0.05	2	None	None
537H	Bin C5392	Chromium	0.01	0.01	None	None	None
538H	Bin 5388	Catalyst Dust (6)	0.01	0.05	2	None	None
1243	MgCl2 Charge Pot	MgCl2	0.26	0.05	None	None	None
1244	TiCl3 Charge Pot	TiCl3	0.19	0.03	None	None	None
1055H	Bin C5350	Catalyst Dust (6)	0.01	0.01	2	None	None

Footnotes:

(1) Emission point identification – either specific equipment designation or emission point number from plot plan
(2) Specific point source name. For fugitive sources use area name or fugitive source name
(3) VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1. Speciated VOC as indicated.
NO_X – oxides of nitrogen
CO – carbon monoxide
SO_2 – sulfur dioxide
HCl – hydrogen chloride
PM – particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} – particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) The VOC is Isopentane.
(6) Catalyst dust is particulate matter less than 10 microns which contains as much as 100 weight percent amorphous silica and not more than 1.00 weight percent hexavalent chromium.
(7) The 0.24 ton per year (tpy) VOC, 0.46 tpy chlorobenzene, and 0.07 tpy o-Cresol are authorized through Permits by Rule (PBR) Registration Numbers 42461, 43990, 51164, and 49720. These PBRs have not been voided.

* Emissions rates are based on and the facilities are limited by the following maximum operating schedule:
Hrs/Day _____ Days/week_____ Weeks/year_____ or Hrs/year 8760
** Compliance with annual emission limits is based on a rolling 12-month period

Major NSR Summary Table

Permit Number: 1567 and PSDTX118M4			**Issuance Date:** 11/7/2013; Project 197514				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
233	G5 Catalyst Feed Vnt	PM	0.01	0.01	6	6, 16, 20	6
233	G5 Catalyst Feed Vnt	VOC	0.33	1.45	None	None	None
245	Y-System Baghouse Vent	PM	0.10	0.19	2, 6	6, 16, 20	6
246	Large Flare	VOC	210.36	65.79	4, 8	4, 8, 20	4
246	Large Flare	NOx	29.75	18.26	4, 8	4, 8, 20	4
246	Large Flare	CO **(PSD)**	151.57	93.06	4, 8	4, 8, 20	4
246	Large Flare	SO2	0.40	0.50	4, 8	4, 8, 20	4
246	Large Flare MSS	VOC	507.88	4.38	4, 8	4, 8, 20	4
246	Large Flare MSS	NOx	46.31	0.40	4, 8	4, 8, 20	4
246	Large Flare MSS	CO	235.99	2.06	4, 8	4, 8, 20	4
248	G5 Gas Compressor Seal Oil Vent	VOC	0.27	1.16	None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
249	Analyzer Vents	VOC	0.32	1.37	None	None	None
401, 402, 404, and 615	X-1, X-2, X-5, and X-6 Transfer Systems	PM	0.29	0.79 (7)	2, 6	6, 16, 20	6
403	X-3 Transfer Systems	PM	0.10	0.19	2, 6	6, 16, 20	6
409	Blending Bins Baghouse	PM	7.20	2.70	2, 6	6, 16, 20	6
540	Master Batch System Vent	PM	0.02	0.01	2, 6	6, 16, 20	6
1005	G-5 Product Purge Bin Rotary Feeder Vent	PM	0.02	0.08	6	6, 16, 20	6
1029	Resin Seed Bed Vent (8)	PM	8.13	0.13	None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
234H	Silo 101 Baghouse				2, 6	6, 16, 20	6
235H	Silo 102 Baghouse				2, 6	6, 16, 20	6
236H	Silo 103 Baghouse				2, 6	6, 16, 20	6
237H	Silo 104 Baghouse				2, 6	6, 16, 20	6
238H	Silo 105 Baghouse				2, 6	6, 16, 20	6
239H	Silo 106 Baghouse				2, 6	6, 16, 20	6
240H	Silo 107 Baghouse				2, 6	6, 16, 20	6
241H	Silo 201 Baghouse				2, 6	6, 16, 20	6
242H	Silo 202 Baghouse				2, 6	6, 16, 20	6
243H	Silo 203 Baghouse				2, 6	6, 16, 20	6
244H	Silo 204 Baghouse				2, 6	6, 16, 20	6
399H	Silo 205 Baghouse				2, 6	6, 16, 20	6

Permit Number: 1567 and PSDTX118M4			**Issuance Date:** 11/7/2013; Project 197514				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
400H	Silo 206 Baghouse				2, 6	6, 16, 20	6
387H	Silo 401 Baghouse				2, 6	6, 16, 20	6
388H	Silo 402 Baghouse				2, 6	6, 16, 20	6
389H	Silo 403 Baghouse				2, 6	6, 16, 20	6
390H	Silo 404 Baghouse				2, 6	6, 16, 20	6
391H	Silo 405 Baghouse				2, 6	6, 16, 20	6
392H	Silo 406 Baghouse				2, 6	6, 16, 20	6
393H	Silo 301 Baghouse				2, 6	6, 16, 20	6
394H	Silo 302 Baghouse				2, 6	6, 16, 20	6
395H	Silo 303 Baghouse				2, 6	6, 16, 20	6
396H	Silo 304 Baghouse				2, 6	6, 16, 20	6
397H	Silo 305 Baghouse				2, 6	6, 16, 20	6
398H	Silo 306 Baghouse				2, 6	6, 16, 20	6

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
	Total Silos	PM	0.21 (6)	0.79 (7)	2, 6	6, 16, 17, 20	6
		VOC	7.03 (6)	11.46 (7)	15	15, 17, 18, 20	None
1081	Block 12 North Catalyst Wash Pot	VOC	5.87	0.85	None	None	None
1082	Block 12 Middle Catalyst Wash Pot	VOC	5.87	0.85	None	None	None
1083	Block 12 South Catalyst Wash Pot	VOC	5.87	0.85	None	None	None
1084	Block 25 Precursor Wash Pot	VOC	5.87	1.45	None	None	None
1085	Block 25 G-2/G-4 Blender Wash Pot	VOC	5.93	1.46	None	None	None
405	North Blending Bin				None	None	None
406	South Blending Bin				None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
Total EPNs 405 and 406		PM	0.90 (6)	0.49 (7)	2, 6	6, 16, 20	6
766-3	Feed Stream Fugitives (4)	VOC	8.57	37.58	14	14, 20	None
766-7	Reactor Fugitives (4)	VOC	5.77	25.28	14, 21	14, 20, 21	21
1125	No. 4 Activator Vent Filter	PM	0.01	0.02	6	6, 16, 20	6
1126	No. 4 Activator Blow Tank Vent Filter	PM	0.01	0.01	6	6, 16, 20	6
1127	G2 Blender Blow Tank Vent Filter	PM	0.01	0.01	6	6, 16, 20	6
1127	G2 Blender Blow Tank Vent Filter	VOC	0.11	0.54	None	None	None
1128	G4 Blender Blow Tank Vent Filter	PM	0.01	0.01	6	6, 16, 20	6

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1128	G4 Blender Blow Tank Vent Filter	VOC	0.11	0.54	None	None	None
1129	Catalyst Expansion Area Fugitives (4) (9)	VOC	1.20	5.28	14	14, 20	None
705	Small Flare (10)	VOC	17.52	8.95	8, 10, 13	8, 10, 20	None
705	Small Flare (10)	NOx	8.17	3.21	8, 10, 13	8, 10, 20	None
705	Small Flare (10)	CO (PSD)	12.52	4.92	8, 10, 13	8, 10, 20	None
530	THF Tank Vent	VOC	22.06	0.53	None	None	None
535	Bin 7117 Vent Filter	PM	0.01	0.01	6	6, 16, 20	6
535	Bin 7117 Vent Filter	Chromium Metal	0.01	0.01	None	None	None
535	Bin 7117 Vent Filter	VOC	0.50	0.61	None	None	None
535L	Bin 7117 Cylinder Loading Filter	PM	0.01	0.01	6	6, 16, 20	6
535L	Bin 7117 Cylinder Loading Filter	Chromium Metal	0.01	0.01	None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
535L	Bin 7117 Cylinder Loading Filter	VOC	0.20	0.24	None	None	None
1044	South Ethylene Sieve Vent	VOC	6.00		None	None	None
1045	West Ethylene Sieve Vent	VOC	6.00		None	None	None
Total EPN's 1044 and 1045				1.62	None	None	None
1046	Isopentane Sieves Combined Vent	VOC	6.0	0.94	None	None	None
1047	Butene Sieves Combined Vent	VOC	6.0	3.95	None	None	None
1048	Hexene Sieves Combined Vent	VOC	6.0	0.75	None	None	None
1007	Catalyst Bin 31 Loading	PM	0.02	0.09	6	6, 16, 19, 20	6
1007	Catalyst Bin 31 Loading	VOC	0.71	3.09	None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1009	Catalyst Cylinder Ldg	PM	0.01	0.01	6	6, 16, 19, 20	6
1009	Catalyst Cylinder Ldg	VOC	0.02	0.07	None	None	None
705	Small Flare (10)	VOC	2.39	0.79	8, 10, 13	8, 10, 20	None
705	Small Flare (10)	NOx	1.13	0.38	8	8, 20	None
705	Small Flare (10)	CO	1.72	0.57	8	8, 20	None
1150	Silica Charge Pot Filter	PM	0.01	0.02	2, 6	6, 16, 20	6
1151	Magnesium Chloride Charge Pot Filter	PM	0.01	0.01	2, 6	6, 16, 20	6
1152A	Product Cylinder Vent	VOC	0.01	0.01	None	None	None
1152B	Product Cylinder Vent	VOC	0.01	0.01	None	None	None
1154	Mineral Oil Tank Vent	VOC	0.01	0.01	None	None	None
1155	Fugitives (4)	Inorganic	0.01	0.02	None	None	None

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			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1155	Fugitives (4)	VOC	0.53	2.30	14	14, 20	None
1156A	Fugitives (4) – Silica Truck No. 1	PM	0.01	0.01	None	None	None
1156B	Fugitives (4) – Silica Truck No. 2	PM	0.01	0.01	None	None	None
1158A	THF Filters	VOC	0.07	0.01	None	None	None
1158B	THF Filters	VOC	0.07	0.01	None	None	None
1159A	THF Filters	VOC	0.07	0.01	None	None	None
1159B	THF Filters	VOC	0.07	0.01	None	None	None

Footnotes:

(1) Emission point identification – either specific equipment designation or emission point number from a plot plan
(2) Specific point source names. For fugitive sources use area name or fugitive source name
(3) PM – particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} – particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1.
NO_X – total oxides of nitrogen
CO – carbon monoxide

SO_2 – sulfur dioxide
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) [Reserved]
(6) Maximum hourly emission rate from any one emission point listed within a group.
(7) Maximum total annual emission rates for the group of listed emission points.
(8) This EPN is associated with reactor start-up only.
(9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
(10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J facility and catalyst expansion/isopentane recovery.

* Emissions rates are based on and the facilities are limited by the following maximum operating schedule:
Hrs/Day _____ Days/week_____ Weeks/year_____ or Hrs/year 8760
** Compliance with annual emission limits is based on a rolling 12-month period

Major NSR Summary Table

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
246	Large Flare	NOx	24.11	3.68	12	5, 12	None
246	Large Flare	CO **(PSD)**	122.9	18.71	12	5, 12	None
246	Large Flare	VOC (6)	215.40	37.14	11, 12, 17	5, 11, 12, 19	11, 20
246	Large Flare	AL2O3	2.28	0.10	12	5, 12	None
246	Large Flare MSS	NOx	70.84	1.30	12	12	None
246	Large Flare MSS	CO	360.9	6.62	12	12	None
246	Large Flare MSS	VOC	792.9	14.59	11, 12	11, 12, 19	11, 20
479	No. 2 Silica Activator	Silica/ Catalyst Dust	0.01	0.01	2	3	3
480	No. 2 Silica Activator Blow Tank	Silica/ Catalyst Dust	0.01	0.01	2	3	3
481	Silica Bin 6	Silica Dust	0.01	-	2	3	3
482	Silica Bin 7	Silica Dust	0.01	-	2	3	3

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
481, 482	Annual Emissions	Silica Dust	-	0.01	2	3	3
483	G3 Blender Blow Tnk	Catalyst Dust	0.01	0.01	2	3	3
483	G3 Blender Blow Tnk	VOC	0.58	0.14	17	None	None
484	Catalyst Bin 25	Catalyst Dust	0.01	-	2	3	3
484	Catalyst Bin 25	VOC	0.04	0.01	17	None	None
485	Catalyst Bin 26	Catalyst Dust	0.01	-	2	3	3
485	Catalyst Bin 26	VOC	0.04	0.01	17	None	None
486	Catalyst Bin 27	Catalyst Dust	0.01	-	2	3	3
487	Catalyst Bin 28	Catalyst Dust	0.01	-	2	3	3
484, 485, 486, 487	Annual Emissions	Catalyst Dust	-	0.01	2	3	3
488	Middle Catalyst Blow Tank	Catalyst Dust	0.02	-	2	3	3

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
488	Middle Catalyst Blow Tank	VOC	0.59	0.15	17	None	None
489	North Catalyst Blow Tank	Catalyst Dust	0.02	-	2	3	3
489	North Catalyst Blow Tank	VOC	2.78	0.52	17	None	None
490	South Catalyst Blow Tank	Catalyst Dust	0.02	-	2	3	3
490	South Catalyst Blow Tank	VOC	0.59	0.15	17	None	None
771	Catalyst Blow Tank	Catalyst Dust	0.02	-	2	3	3
771	Catalyst Blow Tank	VOC	0.59	0.15	17	None	None
488,489, 490, 771		Catalyst Dust	-	0.02	2	3	3
491	G-1 North	Catalyst Dust	0.01	0.01	2	3	3
	Catalyst Feeder	VOC	1.02	1.93	17	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
492	G-1 South	Catalyst Dust	1.02	1.93	2	3	3
	Catalyst Feeder	VOC	0.82	1.78	17	None	None
493	G-2 North	Catalyst Dust	0.01	0.01	2	3	3
	Catalyst Feeder	VOC	0.82	1.78	17	None	None
494	G-2 South	Catalyst Dust	0.01	0.01	2	3	3
	Catalyst Feeder	VOC	0.82	1.78	17	None	None
495	G-1 Seal Vent System	VOC	0.20	0.88	None	None	None
496	G-2 Seal System Vent	VOC	0.20	0.88	None	None	None
497	G-1 Seal Bed Vent	Polyethylene Dust	4.38	0.24	2	8	None
	Combined Allowables Entry No. 1	VOC	14.48	15.72	15, 17	19	20
504	Resin Bin 101				None	None	None
505	Resin Bin 102				None	None	None
506	Resin Bin 103				None	None	None
591	P-1 Feed Hopper				None	None	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
594	Pellet Dryer Vent				None	None	None
1052	No. 1 Make Baghouse				None	None	None
	Combined Allowables Entry No. 2	VOC	12.14	10.16	15, 17	19	20
507	Resin Bin 201				None	None	None
508	Resin Bin 202				None	None	None
509	Resin Bin 203				None	None	None
1053	No. 2 Make Baghouse				None	None	None
502	No. 1 Trim Vent	Polyethylene	0.10	0.01	2	3	3
503	No. 2 Trim Vent	Polyethylene	0.10	0.04	2	3	3
504 505 506	Resin Bin 101 Resin Bin 102 Resin Bin 103	Polyethylene	0.10	0.41	2	3	3
		VOC (7)	-	-	15, 17	19	None

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
507 508 509	Resin Bin 201 Resin Bin 202 Resin Bin 203	Polyethylene	0.10	0.41	2	3	3
		VOC(8)	-	-	15, 17	19	None
510	No. 1 Transfer Conveyor Separator	Polyethylene	0.15	-	2	3	3
511	No. 2 Transfer Conveyor Separator	Polyethylene	0.15	-	2	3	3
768	Dedicated Transfer System	Polyethylene	0.15	-	2	3	3
510, 511, 768	Annual Emissions		-	0.82	2	3	3
512	No. 1 Loading Conveyor Separator	Polyethylene	0.15	-	2	3	3
513	No. 2 Loading Conveyor Separator	Polyethylene	0.15	-	2	3	3
512, 513	Annual Emissions	Polyethylene	-	0.50	2	3	3

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			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
514	Loading Additive Transfer System	Additive Dust	0.01	0.01	2	3	3
514	Loading Additive Transfer System	Talc	0.13	0.01	2	3	3
516	No. 2 Loading Additive Hopper	Additive/ Talc Dust	0.01	.04	2	3	3
521	G-2 Seed Bed Vent	Polyethylene Dust	4.38	0.24	2	8	None
522	Unit Fugitives Block 26 (5) (6)	VOC	11.74	49.17	4, 11, 13, 15, 17	4, 11, 13, 19	11
523	Analyzer Vents	VOC	0.21	0.89	None	None	None
524	Pelleted Master Batch Baghouse	Polyethylene/ Additive	0.02	0.24	2	3	3
590	P1 Trim Bin Filter	Polyethylene	0.10	0.04	2	3	3

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			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
591	P1 Feed Hopper Filter	Polyethylene/ Additive	0.01	0.05	2	3	3
591	P1 Feed Hopper Filter	VOC (6)	-	-	15, 17	19	None
592	P1 Additive (Granular) Filter	Additive Dust	0.01	0.01	2	3	3
592FF	P1 Feeder Filter B	Additive Dust	0.13	0.05	2	3	3
593	P1 Additive (Pelleted) Filter	Additive Dust	0.01	0.01	2	3	3
593FF	P1 Feeder Filter A	Additive Dust	0.13	0.05	2	3	3
594	P1 Pellet Dryer Exhaust	Polyethylene	0.5	1.55	2	None	None
594	P1 Pellet Dryer Exhaust	VOC (6)	-	-	15, 17	19	None
595	P1 Elutriator Filter	Polyethylene Dust	0.05	0.16	2	3	3

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
705	Small Flare	VOC	50.64	51.11	11, 12, 17, 18	11, 5, 12, 18, 19	11, 20
705	Small Flare	NOx	19.39	21.95	12	5, 12	None
705	Small Flare	CO	60.02	67.93	12	5, 12	None
705	Small Flare	Al2O3	2.28	2.08	12	5, 12	None
705	Small Flare	SO2	0.89	0.19	12	5, 12	None
761	Catalyst Bin 29	Catalyst Dust	0.02	0.01	2	3	3
761	Catalyst Bin 29	VOC	2.19	0.39	17	None	None
762	Catalyst Bin 30	Catalyst Dust	0.02	0.01	2	3	3
762	Catalyst Bin 30	VOC	2.19	0.39	17	None	None
765	Microtalc Filter	Talc Dust	0.12	0.02	2	3	3
765DFUG	Talc Unloading (5)	Talc Dust	1.67	0.05	2	None	None
766	Fugitives, Block 12 (5)	VOC	0.28	1.25	4, 13, 15, 17	4, 13, 19	None
769	Fugitives, Block 17 (5)	VOC	0.33	1.45	4, 13, 15, 17	4, 13, 19	None
1040	Additive Feeder	Additive Dust (Also Talc Dust)	0.01	0.02	2	3	3

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Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
1052	No. 1 Granular Make Baghouse	Polyethylene Dust	0.10	0.04	2	3	3
1052	No. 1 Granular Make Baghouse	VOC (6)	-	-	15, 17	19	None
1053	No. 2 Granular Make Baghouse	Polyethylene Dust	0.10	0.39	2	3	3
1053	No. 2 Granular Make Baghouse	VOC (7)	-	-	15, 17	19	None
1054	P-1 Additive Conveyor	Additive Dust	0.01	0.01	2	3	3
1075D	Talc Feeder Vent Line	Talc Dust	0.04	0.17	2	3	3
1086	Wash Pot	VOC	5.87	0.85	17	9	None
1090	G-1 Purge Bin Analyzer	VOC	0.01	0.01	17	None	None
1148	Ethylene Heating System Fugitives (5)	VOC	0.99	4.32	4, 14, 15, 17	4, 14, 19	None

Footnotes:

(1) Emission point identification – either specific equipment designation or emission point number from plot plan
(2) Specific point source name. For fugitive sources use area name or fugitive source name
(3) VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1.
NO_X – oxides of nitrogen
SO_2 – sulfur dioxide
Al_2O_3 – aluminum oxide
CO – carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a rolling 12-month period
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special conditions and permit application representations.
(6) 0.2 ton per year of VOC are authorized through Permit by Rule (PBR) 43990. The PBR has not been voided.
(7) See Combined Allowables – Entry No. 1.
(8) See Combined Allowables – Entry No. 2.

* Emissions rates are based on and the facilities are limited by the following maximum operating schedule:
24 Hrs/Day 7 Days/week 52 Weeks/year or 8760 or Hrs/year

Major NSR Summary Table

Permit Number: 18773 and PSDTX118M4			**Issuance Date:** 01/31/2013; Project 183696				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
700	Rxn and Ethylene Purification Fugitives (5)	VOC	6.04	25.56	2, 7	2, 7, 15	2
704	Analyzer Vent	VOC	0.22	0.96	None	None	None
705	Small Flare	CO	52.86	70.31	11	10, 11, 15	None
705	Small Flare	NOx	17.08	22.71	11	10, 11, 15	None
705	Small Flare	VOC	48.34	62.49	2, 11	2, 10, 11, 15	2
707	Cycle Gas Compressor Seal and Lube Oil Vent	VOC	0.11	0.48	None	None	None
708	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01	3	3, 4, 15	4

Permit Number: 18773 and PSDTX118M4			**Issuance Date:** 01/31/2013; Project 183696				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
708	Catalyst Transfer Tank Vent Filter	VOC	0.57	0.17	None	None	None
709	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01	3	3, 4, 15	4
709	Catalyst Transfer Tank Vent Filter	VOC	0.57	0.17	None	None	None
710	G-3 Reactor Seed Bed Vent	Polyethylene Dust	8.13	0.20	None	None	None
712	Catalyst Vent Filter	PM	0.04	0.01	3	3, 4, 15	4
712	Catalyst Vent Filter	VOC	0.006	0.003	None	None	None
715	Pneumatic Conveyor Vent Filter	PM	0.01	0.01	3	3, 4, 15	4
716-717	Additive Bin Vent Filters	PM	0.02	0.01	3	3, 4, 15	4

Permit Number: 18773 and PSDTX118M4			**Issuance Date:** 01/31/2013; Project 183696				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
716FF	P3 Pelleter Preblend Receiver	Additive Dust	0.13	0.08	3	3, 4, 15	4
717FF	P3 Pelleter Antiox Receiver	Additive Dust	0.13	0.08	3	3, 4, 15	4
718	Trim Receiver Vent Filter	PM	0.03	0.03	3	3, 4, 15	4
720	Pelleting System Dust Collector	PM	0.01	0.01	3	3, 4, 15	4
721	Pelleter Dryer Exhaust	PM	0.95	3.11	None	10, 15	None
720, 722-724	Storage and Blend Bin Vent Filters and Pelleting System Dust Collector	PM	0.10	0.31	3	3, 4, 10, 15	4
720, 722-724	Storage and Blend Bin Vent Filters and Pelleting System Dust Collector	VOC	6.44	18.53	None	10, 15	None

Permit Number: 18773 and PSDTX118M4			**Issuance Date:** 01/31/2013; Project 183696				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
725	Pellet Loading Vent Filter	PM	0.10	0.31	3	3, 4, 10, 15	4
246	Large Flare	CO	22.69	2.10	11	None	None
246	Large Flare	NOx	4.45	0.41	11	None	None
246	Large Flare	VOC	48.78	5.22	2, 11, 14	2, 15	2
246	Large Flare MSS	CO	280.63	3.65	11	None	None
246	Large Flare MSS	NOx	55.07	0.72	11	None	None
246	Large Flare MSS	VOC	610.00	7.93	2, 11, 14	2, 15	2
1239	Additive Hopper	PM10	0.04	0.05	3	3, 4, 15	4
1240	Additive Hopper	PM10	0.04	0.05	3	3, 4, 15	4
1241	Additive Hopper	PM10	0.04	0.05	3	3, 4, 15	4
1242	Additive Hopper	PM10	0.04	0.05	3	3, 4, 15	4
578A	Fugitives (5)	VOC(6)	0.049	0.216	14	14, 15	None

Permit Number: 18773 and PSDTX118M4			**Issuance Date:** 01/31/2013; Project 183696				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY(4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
SD89	Fugitives – Product Ethylene (5)	VOC	5.81	25.31	7	7, 15	None

Footnotes:

(1) Emission point identification – either specific equipment designation or emission point number from plot plan
(2) Specific point source name. For fugitive sources use area name or fugitive source name
(3) VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1.
CO – carbon monoxide
NO_X – oxides of nitrogen
PM – particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} – particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Compliance with annual emission limits (tons per year) is based on a rolling 12-month period
(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(6) Propane and propylene emissions from pressure relief valves PSV-2008-62, PSV-2208-63, and associated piping.

* Emissions rates are based on and the facilities are limited by the following maximum operating schedule:
Hrs/Day 24 Days/week 7 Weeks/year or 52

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A PERMIT IS HEREBY ISSUED TO

Union Carbide Corporation

AUTHORIZING THE CONTINUED OPERATION OF

Low Pressure Polyethylene G-1750 Plant

LOCATED AT **Seadrift, Calhoun County, Texas**

LATITUDE 28° 30′ 54″ LONGITUDE 096° 46′ 18″

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code § 116.116 (30 TAC § 116.116)]

2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the TCAA, including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least10% of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section.[30 TAC § 116.120(a), (b) and (c)]

3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]

4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting, Remediation, and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]

5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]

7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]

9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with § §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]

10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition are applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]

11. This permit may be appealed pursuant to 30 TAC § 50.139.

12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]

13. There may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]

14. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.

PERMIT 3639

Date: May 15, 2006

Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

SPECIAL CONDITIONS

Permit Numbers 3639 and PSD-TX-118M4

EMISSION LIMITATIONS AND OPERATING CONDITIONS

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit. **(4/04)**

2. The annual production of polyethylene from the G-1750 Reactor and the throughput of polyethylene products in the Unit Make Bins (Emission Point Nos. [EPNs] 191 to 206) shall not exceed the amounts specified in the confidential letter dated August 7, 1995. Monthly production records shall be maintained at the plant site on at least a two-year retention basis and shall be made available upon request to Texas Commission on Environmental Quality (TCEQ) personnel.

3. There shall be no visible emissions during normal operation from filtered vents (i.e., baghouses, sintered metal filters) associated with this permit. When there are visible stack emissions from a filtered vent or leaks from a filtered vent for a period that exceeds five minutes in any two-hour period, the TCEQ Regional Office shall be notified within three days. The process controlled by the filtered vent shall be shut down immediately or rerouted to another control device until failed or damaged parts have been repaired or replaced. The filtered vent shall not resume operations until it is in good working order.

4. No more than 12,500 pounds of type A catalyst and 12,500 pounds of type G catalysts shall be deactivated per year based on a 12-month rolling average in the Catalyst Wash Pots (EPNs 1079 and 1080). **(4/04)**

FLARE

5. Flares shall be designed and operated in accordance with the following requirements:**(05/06)**

   A. The Large Flare (EPN 246) shall be designed and operated in accordance with Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18), including specifications of minimum heating value of the waste gas and pilot flame monitoring. The large flare shall be exempt from the maximum exit velocity requirement. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

FUGITIVE MONITORING PROGRAM

6. Piping, Valves, Connectors, Pumps, and Compressors in Volatile Organic Compounds (VOC) Service - 28VHP**(05/06)**

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) to piping and valves two inches nominal size and smaller or (3) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in Title 40 Code of Federal Regulations § 60.485(a) - (b) [40 CFR § 60.485(a) - (b)].

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component

would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

7. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E of Special Condition No. 6 at all other times

MAINTENANCE ACTIVITIES

8. This permit authorizes emission from the Poly Flare (EPN 246) for the following maintenance, start-up, and shutdown activities.

- G1750 reactor start-up, shutdown, and maintenance activities
- Process line flushing
- G1750 reactor seed bed charges

These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance start-up and shutdown activities from EPN 246 not in the above list are not authorized by this permit.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 3639 and PSD-TX-118M4

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY **
246	Large Flare	VOC	79.53	87.95
		NO_x	6.93	8.72
		CO	35.34	44.44
246	Large Flare Startup, Shutdown, and Maintenance	VOC	107.89	1.22
		NO_x	11.10	0.12
		CO	56.57	0.58
441	Mark IV Catalyst Feeder Vent	PM	0.04	0.02
		VOC	0.02	0.03
347	Unit Analyzer Vents	VOC	0.11	0.46
351	Compressor Seal Oil Degassing Reservoir	VOC	0.2	0.86
766-5	Fugitives (4) (5)	VOC	4.5	19.72
191 to 206	Unit Make Bins	PM	0.13	0.35
		VOC	9.90	34.35
1043	Sample Purger	VOC	0.14	0.41
1079	Catalyst Wash Pot No. 1	VOC	5.87	0.85
1080	Catalyst Wash Pot No. 2	VOC	5.87	0.85
1162	Portable Mineral Oil Pot Vent	VOC	0.10	0.01
1178	Seed Bed Vent	PM	3.33	0.26
1223	Cycle Gas Line Fugitives (4) (5)	VOC	0.01	0.06

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) 1.52 tpy of VOC emissions are authorized via Permit by Rule (PBR) Registration Numbers 32964, 31855, and 42305. These PBRs have not been voided.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day_____ Days/week_____ Weeks/year_____or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated May 15, 2006

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A PERMIT IS HEREBY ISSUED TO
Union Carbide Corporation
AUTHORIZING THE CONTINUED OPERATION OF
Chemicals and Plastics Manufacturing Facility
LOCATED AT **Seadrift, Calhoun County, Texas**
LATITUDE 20° 30′ 38″ LONGITUDE 096° 46′ 25″

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code § 116.116 (30 TAC § 116.116)]

2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the TCAA, including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least10% of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section.[30 TAC § 116.120(a), (b) and (c)]

3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]

4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting, Remediation, and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]

5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]

7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]

9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with § §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]

10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition are applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]

11. This permit may be appealed pursuant to 30 TAC § 50.139.

12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]

13. There may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]

14. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.

PERMIT 6361

Date: November 23, 2005

Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

SPECIAL CONDITIONS

Permit Numbers 6361 and PSDTX118M4

MAXIMUM ALLOWABLE EMISSION RATES

1. This permit authorizes emissions only from those points listed in the attached table entitled AEmission Sources - Maximum Allowable Emission Rates,@ and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

2. There shall be no visible emissions during normal operation from the filtered vents associated with the following emission sources: Catalyst Bin 21 (EPN 467), Catalyst Bin 22 (EPN 468), Catalyst Bin 23 (EPN, 469), Catalyst Bin 24 (EPN 470), Catalyst Bin 32 Loading (EPN 1008), Catalyst Cylinder Loading (EPN 1010), Cylinder Loading Filter (EPN 1143), Additive Dump Hopper Filter (EPN 1145), Additive Receiver Filter (EPN 1146), Silica Preheater (EPN 226), No. 1 Activator (EPN 227), No. 1 Activator Blow Tank (EPN 228), Filter Bins 1 through 5 (EPN 229), G-5 Blender Blow Tank (EPN 230), Filter Bins 11 through 15 (EPN 231), Filter Bins 16 through 20 (EPN 232), No. 3 Activator (EPN 772), No. 3 Activator Blow Tank (EPN 773), Silica Dehydrator (EPN 1161), Silica 958 Bin Filter (EPN 1055), Catalyst Loading Filter (EPN 533), Bin 53056 Filter (EPN 534 H), Precursor Unit Blowtank (EPN 536 H), Bin C5392 (EPN 537 H), Bin 5388 (538 H), Bin C5350 (EPN 1055 H). **(01/11)**

OPERATING PARAMETERS

3. A. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum.

   B. Annual throughput of the Liquid Catalyst (isopentane) Storage Tank (EPN 436) shall not exceed 338,000 gallons per year on a 12-month rolling basis.

4. All tanks in the 1998 Polyolefins Catalyst Precursor Project shall be pressurized (∃5 pounds per square inch [psi] gauge), and have a capacity of less than 10,000 gallons. Tanks shall vent to a flare meeting the requirements contained in Title 40 Code of Federal Regulations ' 60.18 (40 CFR ' 60.18).

   The tanks that are included in the 1998 Polyolefins Catalyst Precursor Project are: Ethanol (C-3092), Isopentane (C-3091), Monochlorobenzene (C-3090), Aliphatic Alcohol (C-3095), Waste Storage Tank (C-3086), Spent Monochlorobenzene (C-3082) and Spent Isopentane (C-3084).

5. The EPR Flare (EPN 1100) and the Large Poly Flare (EPN 246) shall both be designed and operated in accordance with 40 CFR ' 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

6. The catalyst precursor particulate matter emission sources (EPNs 1143, 1145, and 1146) shall be filtered prior to atmospheric discharge. Particulate matter exiting from these filters shall be at or below the concentration of 0.01 grain/dry standard cubic feet.

7. Catalyst precursor shall be loaded into containers and transported off-site for further processing unless the owner/operator obtains additional authorization by standard exemption or other permit action.

8. This permit authorizes emissions from the Seal Pot (EPN 436) and from the ME Drumline Washer (EPN 1130) for the following maintenance, startup, and shutdown activities:

    - Small process line flushes due to start-up, shutdown, and maintenance activities. Process line flushes that are routed to the Seal Pot (EPN 436) may only occur three hours per year.

    - ME Drumline Washing which is limited to 730 batches per year.

    These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance, startup, and shutdown activities not in the above list are not authorized by this permit.

FUGITIVE MONITORING PROGRAM

9. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28M

    A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch absolute (psia) at 100EF or at maximum process operating temperature if less than 100EF or (2) for vent lines to the flare or to flexible tubing lines equal to or less than 0.5 inch in diameter, or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 1150), shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR ' 60.485(a)-(b).

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with

an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the Texas Commission on Environmental Quality (TCEQ) Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations.

K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

10. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28VHP

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment associated with the G-Mix Blender Fugitives (EPN 766-3A):

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68EF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR ' 60.485(a)-(b).

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC ' 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

RECORDKEEPING

11. A record of A through D must be maintained for EPNs 436, 1008, 1010, and 467 through 470 to demonstrate compliance with Special Condition No. 1. A record of item E must be maintained for EPNs 1100, and 1140 through 1146 to demonstrate compliance with Special Condition No. 1. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request.

A. Catalyst throughput in lb/yr.

B. Logs of replacement or repair of filters used for particulate emission control.

C. The liquid catalyst (isopentane) tank filling date and volume filled.

D. The liquid catalyst (isopentane) annual throughput in gallons.

E. Catalyst precursor throughput in lb/yr.

F. The dates and duration of all process line flushes to the seal pot that occur during maintenance activities.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6361 and PSDTX118M4

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
436	Liquid Catalyst Storage Tank Routine Operations	VOC (5)	114.64	3.53
436	Liquid Catalyst Storage Tank Maintenance, Startup, and Shutdown Activities	VOC (5)	1.32	0.01
436F	Fugitives from Liquid Catalyst Tank (4)	VOC (5)	0.49	2.14
467	Catalyst Bin 21	Catalyst Dust (6)	0.12	0.01
468	Catalyst Bin 22	Catalyst Dust (6) VOC	0.12 0.04	0.01 0.14
469	Catalyst Bin 23	Catalyst Dust (6) VOC	0.24 0.04	0.02 0.14
470	Catalyst Bin 24	Catalyst Dust (6) VOC	0.24 0.04	0.02 0.14
1008	Catalyst Bin 32 Loading	Catalyst Dust (6)	0.34	0.05
1010	Catalyst Cylinder Loading	Catalyst Dust (6)	0.14	0.03

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1100	EPR Unit Flare	VOC, other	42.33	6.43
		Toluene	0.01	0.01
		Chlorobenzene	3.17	0.60
		Titanium Tetrachloride	0.01	0.01
		Aliphatic Alcohol or Glycol Ethers	0.01	0.01
		n-Hexanol	0.09	0.01
		o-Cresol	0.01	0.01
		NO_x	8.11	1.22
		CO	69.54	10.47
		HCl	51.48	9.68
		SO_2	0.13	0.02
1140	Fugitives (4) (7)	VOC, other	1.67	7.23
		Toluene	0.01	0.01
		Chlorobenzene	0.86	3.72
		o-Cresol	0.11	0.45
		Titanium-Tetrachloride	0.10	0.42
		Aliphatic Alcohol or Glycol Ethers	0.18	0.77
		HCl	0.01	0.04
		Ethylene Glycol	0.03	0.12
1143	Cylinder Loading Filter	PM_{10}	0.01	0.01
		Isopentane	0.08	0.02
		Chlorobenzene	0.02	0.01
1144	Truck Loading Fugitives (4)	VOC, other	1.93	0.05
		Toluene	0.01	0.01
		Chlorobenzene	0.04	0.01
		o-Cresol	0.01	0.01
		Titanium Tetrachloride	0.01	0.01
		Aliphatic Alcohol or Glycol Ethers	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1145	Additive Dump Hopper Filter	PM_{10}	0.01	0.01
1146	Additive Receiver Filter	PM_{10}	0.01	0.05
226	Silica Preheater	Catalyst Dust (6)	0.10	0.02
227	No. 1 Activator	Catalyst Dust (6)	0.01	0.01
		VOC	7.23	0.99
		Ammonia	0.30	0.04
228	No. 1 Activator Blow Tank	Catalyst Dust (6)	0.04	0.01
229	Filter Bins 1 through 5	Catalyst Dust (6)	0.14	0.06
230	G-5 Blender Blow Tank	Catalyst Dust (6)	0.12	0.02
		VOC	0.02	0.07
231	Filter Bins 11 through 15	Catalyst Dust (6)	0.09	0.01
232	Filter Bins 16 through 20	Catalyst Dust (6)	0.13	0.02
		VOC	0.10	0.02
766-3A	G-Mix Fugitives (4)	VOC	1.00	0.57
703	Catalyst Preparation Fugitives (4)	VOC	0.09	0.42
772	No. 3 Activator	Catalyst Dust (6)	0.03	0.01
		VOC	15.80	2.38
773	No. 3 Activator Blow Tank	Catalyst Dust (6)	0.02	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
246	Large Poly Flare	VOC	40.51	33.48
		NO_x	2.74	2.20
		CO	13.97	11.22
		Ammonia	0.02	0.01
1161	Silica Dehydrator	PM	0.01	0.02
		VOC	0.33	0.10
1130	ME Drum Liner Washing	VOC	2.67	1.98
1055	Silica 958 Bin Filter	Silicon Dioxide Dust (6)	0.01	0.01
533	Catalyst Loading Filter	Silicon Dioxide Dust	0.01	0.01
532	Precursor Fugitives Existing	VOC	0.44	1.95
534 H	Bin 53056 Filter	Catalyst Dust (6)	0.01	0.05
536 H	Precursor Unit Blowtank	Catalyst Dust (6)	0.01	0.05
		VOC	0.01	0.01
537 H	Bin C5392	Catalyst Dust (6)	0.01	0.05
		Chromium	0.01	0.01
538 H	Bin 5388	Catalyst Dust (6)	0.01	0.05
1243	$MgCl_2$ Charge Pot	$MgCl_2$	0.26	0.05
1244	$TiCl_3$ Charge Pot	$TiCl_3$	0.19	0.03
1055 H	Bin C5350	Catalyst Dust (6)	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan
(2) Specific point source names. For fugitive sources use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1. Speciated VOC as indicated.
NO_x - oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
HCl - hydrogen chloride
PM - particulate matter suspended in the atmosphere including PM_{10}.
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) The VOC as Isopentane.
(6) Catalyst dust is particulate matter less than 10 microns which contains as much as 100 weight percent amorphous silica and not more than 1.00 weight percent hexavalent chromium.
(7) The 0.24 ton per year (tpy) VOC, 0.46 tpy chlorobenzene, and 0.07 tpy o-Cresol are authorized through Permits by Rule (PBR) Registration Numbers 42461, 43990, 51164, and 49720. These PBRs have not been voided.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day ___ Days/week ___ Weeks/year ____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated: February 3, 2011

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Continued Operation of
Seadrift Operations
Located at **Seadrift, Calhoun County, Texas**
Latitude 28° 30′ 54″ Longitude 96° 46′ 18″

Permit: 1567 and PSDTX118M4

Issuance Date : November 7, 2013

Renewal Date: November 7, 2023

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 1567 and PSDTX118M4

EMISSION STANDARDS

1. This permit authorizes emissions only from those points listed in the attached table entitled AEmission Sources - Maximum Allowable Emission Rates,@ and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit. **(2/04)**

2. There shall be no visible emissions during normal operation from the baghouses associated with this permit.

3. This permit authorizes emissions from the Flare (Emission Point No. [EPN] 246 for maintenance, startup, and shutdown of the G-5 reactor for instances including (but not limited to) inventory control, product transitions, periodic maintenance activities, and periodic shutdowns. These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table (MAERT). Any maintenance, startup, and shutdown activities not in the above list are not authorized by this permit. **(11/05)**

FLARE UPGRADE

4. A. The December 6, 1993, renewal of and amendment to this permit required the permit holder to conduct a study assessing the ability of the Poly Flare (EPN A-246) to meet the requirements of Title 40 Code of Federal Regulations (40 CFR) § 60.18. The final result of the study was submitted to the Texas Commission on Environmental Quality (TCEQ) in a report dated October 14, 1994, in which certain actions were proposed to ensure that the minimum waste gas heating value requirement of 40 CFR § 60.18 would be met. The holder of this permit shall implement those proposed actions according to the timetable contained in the report. The designation for the Poly Flare (EPN A-246) has been changed to Large Flare (EPN 246).

   B. The Large Flare (EPN 246) shall be exempt from the maximum tip velocity requirement in Special Condition No. 8. Tip velocity shall not exceed 400 feet per second (ft/sec) for more than three hours per year; and duration of operation of this flare with tip velocity in excess of 400 ft/sec shall be recorded and maintained per Special Condition No. 20. **(11/00)**

PRODUCTION RATES AND THROUGHPUT REQUIREMENTS

5. The facilities covered by this permit are limited to the production rates and throughput limits summarized in a Abusiness confidential@ letter to the TCEQ dated July 6, 2000. Copies of this letter are available at the TCEQ Corpus Christi Regional Office and the TCEQ Austin Office. Raw materials charge for K-100™ catalyst production are limited to the confidential portion of the application submitted May 12, 2010. **(01/11)**

OPERATIONAL PARAMETERS

6. All air pollution abatement and collection equipment for the facility covered by this permit shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed, as necessary, so that the equipment efficiency can be adequately maintained. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouse:

   A. The exterior of baghouses and all connecting duct work shall be inspected quarterly by facility personnel for physical defects such as holes or cracks that may cause leaks and excess emissions or losses in particulate matter removal efficiency.

   B. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate TCEQ Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.

7. Particulate dust collected from the baghouse shall be disposed of in such a manner to prevent it from becoming airborne.

8. Except as provided for in the special conditions of this permit, flares shall be designed and operated in accordance with the following requirements:

   A. The combined assist natural gas and waste stream to the flare shall meet the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions. Compliance with this condition shall be

demonstrated by monitoring required in section D below. Flare testing per 40 CFR § 60.18(f) may be requested by the TCEQ Regional Office to demonstrate compliance with this condition.

B. The flare shall be operated with a flame present at all times and have a constant pilot flame. The pilot flame shall be monitored by a thermocouple or an infrared monitor and pilot flame monitoring.

C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

D. To ensure compliance with 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream flow composition (total volatile organic compounds [VOC] or Btu content) and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. Records of the hourly average heating value shall be maintained for a period of two years and shall be made available to the Executive Director of the TCEQ upon request.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ∀5.0 percent, temperature monitor shall be ∀2.0 percent at absolute temperature, and pressure monitor shall be ∀5.0 mm Hg;

Calibration of the analyzer shall follow the procedures and requirements of § 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in § 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in § 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with § 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR § 60.18(f)(3) as amended through October 17, 2000, (65 FR 61744).

Compliance with analyzer calibration procedures shall go into effect April 1, 2005.

If calorimeter used, the calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record

the net heating value of the gas sent to the flare, in Btu per standard cubic foot of the gas.

The monitors and analyzers shall operate as required by this section at least 95 percent of the time when the flare is operational, averaged over a rolling 12-month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR § 60.18(f)(4) shall be recorded at least once every 15 minutes. **(1/05) (PSD)**

9. The Flare (EPN 705) shall operate with no less than 99.5 percent efficiency in disposing of the carbon compounds captured by the collection system. The Flare (EPN 246) shall operate with no less than 99 percent efficiency for C2 and C3 compounds and 98 percent efficiency for all other compounds in disposing of carbon compounds captured by the collection system. **(6/98)**

10. When catalyst is fluidized with nitrogen in the No. 4 Activator, the vent stream shall be routed to the No. 4 Activator Water Scrubber, which shall be vented to the Flare (705). **(01/11)**

    A. The No. 4 Activator Water Scrubber shall operate with no less than 99% removal efficiency for acetic acid, methyl acetate, methanol, and sulfuric acid on an hourly average.

    B. The minimum liquid flow to the scrubber shall be 30 gpm, and shall be monitored and recorded at least once an hour.

    The flow monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least annually, whichever is more frequent, and shall be accurate to within 2 percent of span or 5 percent of the design value.

    Quality assured (or valid) data must be generated when the No. 4 Activator is operating. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the No. 4 Activator operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

11. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Storage tank vents, cooling tower exhaust, and process fugitive emissions are excluded from this requirement. Any other exception to this condition requires prior review and approval by the TCEQ Executive Director, and such exceptions may be subject to strict monitoring requirements. **(2/04)**

12. The following safety relief valves at the UCAT-J facility are exempted from the control requirements outlined in Special Condition No. 10:

    PSV=s 3550-101 and 3650-101 (Spray Dryer Inlets)
    PSV=s 3551-101 and 3651-101 (Cyclone Outlets)
    PSV=s 3553-100 and 3653-100 (Scrubber Outlets)
    PSV=s 3555-101 and 3655-101 (Recycle Gas Heaters)
    PSV=s 3581-100 (Refrigeration Hold Tank) **(3/99)**

13. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter. **(1/05) (PSD)**

14. <u>Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28M</u>

    A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch (psi), absolute at 100EF or at maximum process operating temperature if less than 100EF or (2) to piping and valves two inches nominal size and smaller or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

    B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute, American Petroleum Institute, American Society of Mechanical Engineers, or equivalent codes.

    C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

    D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking

during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.
An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)-(b).

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume or found by visual

inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations. **(11/00)**

K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

SAMPLING REQUIREMENTS

15. A. The residual hydrocarbon content of the resin which is transferred to silos will be measured quarterly by the sealed can-gas chromatographic test for the Aworst-case@ resin (resin containing the most entrained hydrocarbons before being purged). The operating unit shall have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.

B. The residual hydrocarbon content of the resin which is transferred to silos shall not exceed the following levels in ppm by weight (ppmw):

Compound	ppmw
ethylene	23
butanes	30
butenes	20
hexanes	122
hexenes	168
isopentane	67

These levels represent the highest residual content of these compounds contained in the resin which may be transferred to silos from the G-5, G-2, G-3, and G-1750 Reactors. **(10/04)**

RECORDKEEPING

16. Pursuant to Special Condition No. 6, records shall be kept on-site detailing the date of each inspection, name of the inspector, and any repair and maintenance work performed.

17. The holder of this permit shall keep records of the quantity of polyethylene handled on an annual basis. In cases where more than one storage silo has been grouped together in this permit, only a record of the quantity of polyethylene handled in the group of silos is necessary.

18. The holder of this permit shall maintain records of the sealed can-gas chromatographic test of the worst-case resin containing the most entrained hydrocarbons before being purged. The holder shall also have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.

19. This condition applies to EPNs 1007 and 1009. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request. **(01/11)**

    A. Logs of replacement or repair of filters used for particulate emission control.

20. Records required by these special conditions shall be retained at the plant site for at least two years following the date the data is obtained and shall be made available to representatives of the TCEQ upon request.

COMPLIANCE ASSURANCE MONITORING **(1/10)**

21. The following requirements apply to the closed vent capture system which includes all equipment that contains, collects, and transports air pollutants from a source to the Flare EPN 246.

    A. If used to control pollutants other than particulate, either:

        (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

        (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

    B. All bypasses for Flare EPN 246 shall comply with either of the following requirements:

        (1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

        (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

        A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

    C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Date February 3, 2011

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 1567 and PSDTX118M4

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

		AIR CONTAMINANTS DATA		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
233	G5 Catalyst Feed Vent	PM	0.01	0.01
		VOC	0.33	1.45
245	Y-System Baghouse Vent	PM	0.10	0.19
246	Large Flare	VOC	210.36	65.79
		NO_x	29.75	18.26
		CO **(PSD)**	151.57	93.06
		SO_2	0.40	0.50
246	Large Flare (Start-Up, Shutdown, and Maintenance)	VOC	507.88	4.38
		NO_x	46.31	0.40
		CO	235.99	2.06
248	G5 Gas Compressor Seal Oil Vent	VOC	0.27	1.16
249	Analyzer Vents	VOC	0.32	1.37
401, 402, 404, and 615	X-1, X-2, X-5, and X-6 Transfer Systems	PM	0.29	0.79 (7)
403	X-3 Transfer System	PM	0.10	0.19
409	Blending Bins Baghouse	PM	7.20	2.70
540	Master Batch System Vent	PM	0.02	0.01
1005	G-5 Product Purge Bin Rotary Feeder Vent	PM	0.02	0.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1029	Resin Seed Bed Vent (8)	PM	8.13	0.13
SILOS				
234 H	Silo 101 Baghouse			
235 H	Silo 102 Baghouse			
236 H	Silo 103 Baghouse			
237 H	Silo 104 Baghouse			
238 H	Silo 105 Baghouse			
239 H	Silo 106 Baghouse			
240 H	Silo 107 Baghouse			
241 H	Silo 201 Baghouse			
242 H	Silo 202 Baghouse			
243 H	Silo 203 Baghouse			
244 H	Silo 204 Baghouse			
399 H	Silo 205 Baghouse			
400 H	Silo 206 Baghouse			
387 H	Silo 401 Baghouse			
388 H	Silo 402 Baghouse			
389 H	Silo 403 Baghouse			
390 H	Silo 404 Baghouse			
391 H	Silo 405 Baghouse			
392 H	Silo 406 Baghouse			
393 H	Silo 301 Baghouse			
394 H	Silo 302 Baghouse			
395 H	Silo 303 Baghouse			
396 H	Silo 304 Baghouse			
397 H	Silo 305 Baghouse			
398 H	Silo 306 Baghouse			
	Total Silos	PM	0.21 (6)	0.79 (7)
		VOC	7.03 (6)	11.46 (7)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1081	Block 12 North Catalyst Wash Pot	VOC	5.87	0.85
1082	Block 12 Middle Catalyst Wash Pot	VOC	5.87	0.85
1083	Block 12 South Catalyst Wash Pot	VOC	5.87	0.85
1084	Block 25 Precursor Wash Pot	VOC	5.87	1.45
1085	Block 25 G-2/G-4 Blender Wash Pot	VOC	5.93	1.46
BLENDING BINS				
405	North Blending Bin			
406	South Blending Bin			
Total EPNs 405 and 406		PM	0.90 (6)	0.49 (7)
766-3	Feed Stream Fugitives (4)	VOC	8.57	37.58
766-7	Reactor Fugitives (4)	VOC	5.77	25.28
CATALYST EXPANSION/ISOPENTANE RECOVERY				
1125	No. 4 Activator Vent Filter	PM	0.01	0.02
1126	No. 4 Activator Blow Tank Vent Filter	PM	0.01	0.01
1127	G2 Blender Blow Tank Vent Filter	PM VOC	0.01 0.11	0.01 0.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1128	G4 Blender Blow Tank Vent Filter	PM	0.01	0.01
		VOC	0.11	0.54
1129	Catalyst Expansion Area Fugitives (4) (9)	VOC	1.20	5.28
705	Small Flare (10)	VOC	17.52	8.95
		NO_x	8.17	3.21
		CO **(PSD)**	12.52	4.92
530	THF Tank Vent	VOC	22.06	0.53
535	Bin 7117 Vent Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.50	0.61
535L	Bin 7117 Cylinder Loading Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.20	0.24
1044	South Ethylene Sieve Vent	VOC	6.00	
1045	West Ethylene Sieve Vent	VOC	6.00	
Total EPNs 1044 and 1045		VOC		1.62
1046	Isopentane Sieves Combined Vent	VOC	6.0	0.94
1047	Butene Sieves Combined Vent	VOC	6.0	3.95
1048	Hexene Sieves Combined Vent	VOC	6.0	0.75

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1007	Catalyst Bin 31 Loading	PM	0.02	0.09
		VOC	0.71	3.09
1009	Catalyst Cylinder Loading	PM	0.01	0.01
		VOC	0.02	0.07
UCAT-J FACILITY				
705	Small Flare (10)	VOC	2.39	0.79
		NO_x	1.13	0.38
		CO	1.72	0.57
1150	Silica Charge Pot Filter	PM	0.01	0.02
1151	Magnesium Chloride Charge Pot Filter	PM	0.01	0.01
1152A	Product Cylinder Vent	VOC	0.01	0.01
1152B	Product Cylinder Vent	VOC	0.01	0.01
1154	Mineral Oil Tank Vent	VOC	0.01	0.01
1155	Fugitives (4)	Inorganic	0.01	0.02
		VOC	0.53	2.30
1156A	Fugitives (4)-Silica Truck No. 1	PM	0.01	0.01
1156B	Fugitives (4)-Silica Truck No. 2	PM	0.01	0.01
1158A	THF Filters	VOC	0.07	0.01
1158B	THF Filters	VOC	0.07	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1159A	THF Filters	VOC	0.07	0.01
1159B	THF Filters	VOC	0.07	0.01

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. For fugitive sources use area name or fugitive source name.
(3) PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) [reserved]
(6) Maximum hourly emission rate from any one emission point listed within a group.
(7) Maximum total annual emission rates for the group of listed emission points.
(8) This EPN is associated with reactor start-up only.
(9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
(10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J Facility and catalyst expansion/isopentane recovery.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day_____ Days/week_____ Weeks/year_____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated February 3, 2011

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Construction and Operation of
Seadrift Operations
Located at **Seadrift, Calhoun County, Texas**
Latitude 28° 30' 46" Longitude 096° 46' 10"

Permit: 6141A and PSDTX118M4

Amendment Date : July 18, 2013

Renewal Date: November 17, 2018

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Emission Limitations and Conditions of Operation

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the Special Conditions. **(12/05)**

2. No visible emissions shall be allowed from any source permitted to emit particulate matter from this facility; any source found to be emitting any visible emissions shall be considered to be in violation of this condition and shall not be operated until the source in question can be operated with no visible emissions.

3. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.

4. Safety relief valves (1) equipped with an upstream rupture disc and that only discharge to the atmosphere as a result of fire or failure of utilities or (2) that are monitored by the fugitive emission program specified by this permit (28M) are exempt from Special Condition No. 6. (See "Business Confidential" submittal of May 3, 1996, Fugitive Emission Calculation section and letter to TCEQ dated July 21, 2003, for count of relief valves exempted by [2].)

   Relief devices exempted from Special Condition No. 6 by (2) shall be monitored by leak checking at least quarterly using the procedures outlined in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Method 21. Any valves found to be leaking in excess of 500 parts per million (ppm) above background shall be replaced or repaired within 15 days unless a unit shutdown is required. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

   After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after the pressure release unless the repair is technically infeasible without a process unit shutdown. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

5. Waste gas emitted from the G-1 and G-2 Purge Bins shall be routed to the Small Flare (Emission Point No. [EPN] 705) at least 95 percent of the total operating

time. The waste gas may be routed to the vent recovery system for monomer recovery and reuse, or vented directly to the flare with no monomer recovery. The number of hours in a calendar year that the waste gas can be diverted to the Large Flare (EPN 246) from either the G-1 or G-2 Purge Bin vents shall not exceed 5 percent of the total operating time.

For purposes of determining compliance with this permit condition, the total operating time is defined as the sum of the operating hours in a given calendar year for the G-1 and G-2 Purge Bins.

6. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table (MAERT). Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions. **(4/04)**

7. This permit authorizes emissions from the Large Flare (EPN 246), the Seed Bed Vents (EPNs 497 and 521), and the Catalyst Wash Pot (EPN 1086) for the following maintenance, start up, and shutdown activities:

   A. Seed bed transfer into the reaction system.

   B. Catalyst deactivation in the catalyst wash pot.

   C. G-1 and G-2 reactor purges.

   These emissions are subject to the maximum allowable emission rates indicated on the MAERT. Any maintenance, start up, and shutdown activities not in the above list are not authorized by this permit. **(4/04)**

8. Reactor 1 Seed Bed (EPN 497) shall not vent to the atmosphere for more than 112 hours per year based on a 12-month rolling average. Reactor 2 Seed Bed (EPN 521) shall not vent to the atmosphere for more than 112 hours per year based on a 12-month rolling average. **(7/13)**

9. No more than 12,500 pounds of catalyst shall be deactivated in the Catalyst Wash Pot (EPN 1086) per year based on a 12-month rolling average. **(4/04)**

Throughput Limits

10. Throughput limits for the permitted facility are defined in terms of polyethylene production from each reactor, pounds per year (lbs/yr). Specific limits are disclosed in the "Business Confidential" section of the applicant's submittal dated July 2, 2012. **(6/13)**

Federal Applicability Requirements

11. This facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels (C-7402 Butene Storage Tank), Polymer Manufacturing (Material Recovery Section and Transfer System), and Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (Material Recovery Section) in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) Subparts A, Kb, and DDD.

12. With the noted exception for EPN 246, Flares (EPNs 705 and 246) shall be designed and operated in accordance with the following requirements:

    A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

       The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR § 60.18(f)(4) shall be recorded at least once every 15 minutes. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements. Note: EPN 246 is exempt from the maximum exit velocity requirements of 40 CFR § 60.18.

    B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications

    C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of steam assist to the flare. **(12/05)**

Fugitive Emissions Monitoring

13. Piping, Valves, Flanges, Pumps, and Compressors in VOC Service - 28M

    A. These conditions shall not apply:

       (1) Where the VOC have an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch, absolute (psia) at

100°F or at maximum process operating temperature if less than 100°F,

(2) To tubing size lines (flexible lines equal to or less than 0.5 inch in diameter) and equipment or to non piping type fittings (swedgelock or ferrule fittings), or

(3) Where the operating pressure is at least 5 kilopascals (0.725 pound per square inch [psi]) below ambient pressure.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Flanges shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b).

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves, flanges, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

I. The results of the required fugitive monitoring and maintenance program shall be made available to the TCEQ Executive Director, or her designated representative, upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken for all components. Records of flange inspections are not required unless a leak is detected.

J. Fugitive emission monitoring required by an applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternative standards for these regulations.

K. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line

between the block valves for safety purposes but shall comply with paragraph E at all other times.

14. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28VHP (EPN 1148)

Except as may be provided for in the special conditions of this permit, the following requirements apply to the Ethylene Heating System (EPN 1148):

A. These conditions shall not apply

(1) Where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F; or

(2) To piping and valves two inches nominal size and smaller; or

(3) Operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer.

Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b).

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive

Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

Sampling And Testing

15. Required sampling and testing shall be conducted in accordance with the procedures specified in Special Condition No. 17. All fugitive emission testing shall be conducted in accordance with the procedures set out in 40 CFR Part 60, Appendix A, Method 21. Testing required by this condition shall be conducted at least once per quarter.

A. Where multiple identical sources may reasonably be expected to have similar emission rates of similar composition, sampling or testing requirements may be fulfilled by sampling or testing a limited number of sources. The permittee shall apply in writing for approval of this alternative. The application shall include information as needed to verify the similarity of the sources.

B. Where feasible, emission sampling or testing shall be conducted when the facility is operating at the design maximum production or transfer rate. In order to fulfill sampling or testing requirements when the maximum production or transfer rate cannot be achieved, testing shall be conducted at the highest attainable production rate. Additional testing may be required by the permitting authority at such time when higher production or design rates are achieved.

Demonstration Of Compliance

16. The permit holder shall grant to TCEQ and EPA confirmed representatives:

    A. Entry to the premises upon which permitted facilities or other facilities under the permit holder's control is located, or for which any records are required to be kept under the terms and conditions of this permit;

    B. Access and reproduction rights, at reasonable times, to any records required to be kept under the terms and conditions of this permit or the Act;

    C. Opportunity to conduct at reasonable times an inspection of:

        (1) Any monitoring equipment or monitoring method required by this permit; or

        (2) Operations and maintenance activity at the permitted facility; and

    D. Opportunity to sample at reasonable times any emissions of pollutants.

17. The methods for demonstration of compliance are as summarized: **(6/13)**

    A. Except for the sources excluded by this condition, all other permitted sources of VOC shall be subject to compliance demonstration by Sealed Can Gas Chromatograph (GC) Method, Leak Detection and Repair (LDAR), or unit material balances and calculations, as appropriate. The sources excluded from these demonstration techniques are EPNs 495, 496, and 523.

    B. Subject to the Sealed Can-GC Method (to be conducted quarterly), EPNs 504, 505, 506, 591, 594, and 1052 may be tested as a combined source (Combined Allowables Entry No. 1); EPNs 507, 508, 509, and 1053, may also be tested as a combined source. The Sealed Can-GC Method is outlined in the "Business Confidential" pages of applicant's submittal dated May 3, 1996.

18. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter.

    To ensure compliance with the provisions of 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream composition (total VOC or British thermal unit content)

and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. For the purpose of determining compliance with the net heating value requirements contained in 40 CFR § 60.18, a three-hour rolling average of the net heating value shall be determined. Records of the hourly average heating value and three hour rolling average heating value shall be maintained for a period of two years and shall be made available to representatives of the TCEQ and/or EPA upon request. **(PSD)**

Recordkeeping And Reporting

19. The facility record shall be comprised of the following:

    A. Polyethylene production from each reactor, lbs/yr (calendar year basis).

    B. All records required by Special Condition No. 13 (28M LDAR).

    C. Sum of Operating Time, G-1 and G-2 Purge Bins, hours per year.

    D. Results of any sampling or testing conducted pursuant to any requirement of this permit.

    E. Findings of any inspection conducted as authorized by Special Condition No. 16.

    These and any other required records shall be established and maintained such that the ability to demonstrate compliance with all authorized short-term and annual emission limits is ensured. These records shall be maintained at the permitted facility for a period of two years after the date they were made. These and all other records required by any previous condition of this permit shall be made available to the TCEQ Executive Director or his representative upon request.

20. All correspondence required by this permit shall be submitted to the TCEQ and EPA. The required compliance correspondence (on a quarterly basis) shall include:

    A. Summary reports in accordance with the VOC protocol specified in Special Condition No. 19. These reports shall contain the following information:

        (1) EPN 246 (Large Flare) - Tons of VOC emitted per quarter.

        (2) EPN 705 (Small Flare) - Tons of VOC emitted per quarter.

(3) Combined Entry No. 1 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.

(4) Combined Entry No. 2 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.

B. Summary reports to indicate periods when either the flare gas analyzer or flow monitor is either out of service or malfunctioning to preclude collection of acceptable data. These periods shall not necessarily indicate departures from compliance with the requirements of this permit.

Maintenance Conditions

21. Emissions of 1-hexene from the Large Flare (EPN 246) due to planned startup, shutdown, and maintenance activities associated with the G-1, G-2, and G-3 Reactor (Permit Number 18773) are limited to 135 lbs/hr during any one hour period. **(4/04)**

Dated July 18, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Number 6141A and PSDTX118M4

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
246	Large Flare	NOx	24.11	3.68
		CO (PSD)	122.9	18.71
		VOC (6)	215.4	37.14
		Al2O3	2.28	0.10
246	Large Flare, Startup, Shutdown, and Maintenance	NOx	70.84	1.30
		CO	360.9	6.62
		VOC	792.9	14.59
479	No. 2 Silica Activator	Silica/Catalyst Dust	0.01	0.01
480	No. 2 Silica Activator Blow Tank	Silica/Catalyst Dust	0.01	0.01
481	Silica Bin 6	Silica Dust	0.01	-
482	Silica Bin 7	Silica Dust	0.01	-
481, 482	Annual Emissions	Silica Dust	-	0.01
483	G-3 Blender Blow Tank	Catalyst Dust	0.01	0.01
		VOC	0.58	0.14
484	Catalyst Bin 25	Catalyst Dust	0.01	-
		VOC	0.04	0.01
485	Catalyst Bin 26	Catalyst Dust	0.01	-
		VOC	0.04	0.01
486	Catalyst Bin 27	Catalyst Dust	0.01	-
487	Catalyst Bin 28	Catalyst Dust	0.01	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
484, 485, 486, 487	Annual Emissions	Catalyst Dust	-	0.01
488	Middle Catalyst Blow Tank	Catalyst Dust	0.02	-
		VOC	0.59	0.15
489	North Catalyst Blow Tank	Catalyst Dust	0.02	-
		VOC	2.78	0.52
490	South Catalyst Blow Tank	Catalyst Dust	0.02	-
		VOC	0.59	0.15
771	Catalyst Blow Tank	Catalyst Dust	0.02	-
		VOC	0.59	0.15
488, 489, 490, 771	Annual Emissions	Catalyst Dust	-	0.02
491	G-1 North Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	1.02	1.93
492	G-1 South Catalyst Feeder	Catalyst Dust	1.02	1.93
		VOC	0.82	1.78
493	G-2 North Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
494	G-2 South Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
495	G-1 Seal Vent System	VOC	0.2	0.88
496	G-2 Seal System Vent	VOC	0.2	0.88
497	G-1 Seed Bed Vent	Polyethylene Dust	4.38	0.24

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Combined Allowables - Entry No. 1				
504, 505, 506, 591, 594, and 1052	Resin Bin 101, Resin Bin 102, Resin Bin 103, P-1 Feed Hopper, Pellet Dryer Vent, and No. 1 Make Baghouse	VOC	14.48	15.72
Combined Allowables - Entry No. 2				
507, 508, 509, and 1053	Resin Bin 201, Resin Bin 203, Resin Bin 203, and No. 2 Make Baghouse	VOC	12.14	10.16
502	No. 1 Trim Vent	Polyethylene	0.1	0.01
503	No. 2 Trim Vent	Polyethylene	0.1	0.04
504, 505, 506	Resin Bin No. 101, 102, and 103	Polyethylene	0.1	0.41
		VOC (7)	-	-
507, 508, 509	Resin Bin No. 201, 202, and 203	Polyethylene	0.1	0.41
		VOC (8)	-	-
510	No. 1 Transfer Conveyor Separator	Polyethylene	0.15	-
511	No. 2 Transfer Conveyor Separator	Polyethylene	0.15	-
768	Dedicated Transfer System	Polyethylene	0.15	-
510, 511, and 768	Annual Emissions	Polyethylene	-	0.82
512	No. 1 Loading Conveyor Separator	Polyethylene	0.15	-
513	No. 2 Loading Conveyor Separator	Polyethylene	0.15	-
512 and 513	Annual Emissions	Polyethylene	-	0.50
514	Loading Additive Transfer System	Additive Dust	0.01	0.01
		Talc	0.13	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
516	No. 2 Loading Additive Hopper	Additive/Talc Dust	0.01	0.04
521	G-2 Seed Bed Vent	Polyethylene Dust	4.38	0.24
522	Unit Fugitives Block 26 (5)(6)	VOC	11.74	49.17
523	Analyzer Vents	VOC	0.21	0.89
524	Pelleted Master Batch Baghouse	Polyethylene/Additive	0.02	0.01
590	P-1 Trim Bin Filter	Polyethylene	0.1	0.04
591	P-1 Feed Hopper Filter	Polyethylene/Additive	0.01	0.05
		VOC (6)	-	-
592	P-1 Additive (Granular) Filter	Additive Dust	0.01	0.01
592FF	P-1 Feeder Filter B	Additive Dust	0.13	0.05
593	P-1 Additive (Pelleted) Filter	Additive Dust	0.01	0.01
593FF	P-1 Feeder Filter A	Additive Dust	0.13	0.05
594	P-1 Pellet Dryer Exhaust	Polyethylene	0.5	1.55
		VOC (6)	-	-
595	P-1 Elutriator Filter	Polyethylene Dust	0.05	0.16
705	Small Flare	NOx	19.39	21.95
		CO	60.02	67.93
		VOC	50.64	51.11
		SO2	0.89	0.19
		AL2O3	2.28	2.08
761	Catalyst Bin 29	Catalyst	0.02	0.01
		VOC	2.19	0.39

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
762	Catalyst Bin 30	Catalyst	0.02	0.01
		VOC	2.19	0.39
765	Microtalc Filter	Talc Dust	0.12	0.02
765DFUG	Talc Unloading (5)	Talc Dust	1.67	0.05
766	Fugitives, Block 12 (5)	VOC	0.28	1.25
769	Fugitives, Block 17 (5)	VOC	0.33	1.45
1040	Additive Feeder	Additive/Talc Dust	0.01	0.02
1052	No. 1 Granular Make Baghouse	Polyethylene Dust	0.1	0.04
		VOC (6)	-	-
1053	No. 2 Granular Make Baghouse	Polyethylene Dust	0.1	0.39
		VOC (7)	-	-
1054	P-1 Additive Conveyor	Additive Dust	0.01	0.01
1075D	Talc Feeder Vent Line	Talc Dust	0.04	0.17
1086	Wash Pot	VOC	5.87	0.85
1090	G-1 Purge Bin Analyzer	VOC	0.01	0.01
1148	Ethylene Heating System Fugitives (5)	VOC	0.99	4.32

Emission Sources - Maximum Allowable Emission Rates

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
Al_2O_3 - aluminum oxide
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) 0.2 tons per year of VOC are authorized through PBR 43990. The PBR has not been voided.
(7) See Combined Allowables- Entry No. 1.
(8) See Combined Allowables- Entry No. 2.

Date: June 18, 2013

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Construction and Operation of
UCC Seadrift Operations
Located at **Seadrift, Calhoun County, Texas**
Latitude 28° 30′ 54″ Longitude 96° 46′ 18″

Permit: 18773

Revision Date : January 31, 2013

Renewal Date: April 3, 2014

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 18773 and PSDTX118M4

Emission Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the Special Conditions. **(11/05)**

Federal Program Applicability

2. The polyethylene facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60, Subpart A and DDD (40 CFR Part 60, Subparts A and DDD) on Standards of Performance for New Stationary Sources promulgated for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry and for VOC emissions from the Polymer Manufacturing Industry.

Baghouses and Filters

3. There shall be no visible emissions during normal operations from baghouses or filters. All filters shall be maintained in good condition at all times and changed as necessary. A spare-parts filter inventory shall be maintained on site. Records shall be maintained of all inspections and maintenance performed. **(11/05)**

4. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.

5. All hooding, duct, and collection systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.

6. Particulate matter grain loading shall not exceed 0.01 grains per dscf of air from any vent with the exception of filters on Emission Point Nos. (EPNs) 716FF, 717FF, and 1239 - 1242, which will achieve a 99.9 percent removal efficiency. **(4/04)**

Leak Detection and Repair Monitoring Program

7. Piping, Valves, Flanges, Pumps, and Compressors in VOC Service

The following requirements apply to the above-referenced equipment:

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch, absolute (psia) at 100°F or at maximum process operating temperature if less than 100°F, (2) to piping and valves two inches nominal size and smaller, (3) where the operating pressure is at least five kilopascals (0.725 pounds per square inch [psi]) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115) shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance. Flanges shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.
Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves including (but not limited to welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture

discs, a pressure gauge shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next scheduled process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)-(b).

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including but not limited to diaphragm, canned, or magnetic driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves, flanges, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping liquids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

I. The results of the required fugitive monitoring and maintenance program shall be made available to the TCEQ Executive Director, or a designated representative, upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken for all components. Records of flange inspections are not required unless a leak is detected.

J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable NESHAPS, 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

K. Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternative standards for these regulations.

L. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

Operational Limitations – Polyethylenene Facility

8. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table (MAERT). Any releases directly to the atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions, with the exception of those listed below. **(09/02)**

PSV-2001-61	PSV-2105-60	PSV-3001-60	PSV-4101-60	PSV-5009-60
PSV-2001-62A	PSV-2109-60	PSV-3003-60	PSV-4103-60	PSV-9004-60
PSV-2001-62B	PSV-2112-60	PSV-4001-60	PSV-4106-60	PSV-53081-30
PSV-2002-60	PSV-2113-606	PSV-4001-67	PSV-4108-60	PSV-641-33

9. Safety valves that discharge to the atmosphere only as a result of fire or failure of utilities are exempt from Special Condition No. 8 provided that each valve is equipped with a rupture disc upstream. A pressure gauge shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next scheduled process shutdown. **(1/13)**

10. The production of linear low-density and high-density polyethylene from the polyethylene facility for any 12-month period shall not exceed 621 million pounds. Monthly production records shall be maintained at the plant site for a period of three years and shall be made available for inspection by the Executive Director of the TCEQ or TCEQ representative.

11. Except as provided for in the special conditions of this permit, flares shall be designed and operated in accordance with 40 CFR § 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame

monitoring. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter. The flare gas analyzer and flow monitor shall be in service no less than 95 percent of the operating time as determined on a 12-month rolling basis. The holder of this permit shall continue to comply with the provisions of 40 CFR § 60.18 during the flare gas analyzer or flow monitor downtime.

To ensure compliance with the provisions of 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream composition (total VOC or British thermal units [Btu] content) and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. Records of the hourly average heating value shall be maintained for a period of two years and shall be made available to the Executive Director of the TCEQ upon request. **(4/04)**

12. The Large Flare (EPN No. 246) shall be exempt from the maximum tip velocity requirement in Special Condition No. 11. **(1/13)**

13. The Small Flare (EPN No. 705) shall operate with no less than 99.5 percent efficiency in disposing of the carbon compounds contained in waste gases captured by the collection system. **(10/01)**

Propylene Feed Line

14. The Pressure Relief Valves PSV-2008-62 and PSV-2008-63 under the Fugitives (EPN 578A) shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Relief valves equipped with a rupture disc or venting to a control device are not required to be monitored. **(1/13)**

    Damaged or leaking valves found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping liquids) shall be tagged and replaced or repaired.

Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at his discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

The results of the required fugitive monitoring and maintenance program shall be made available to the TCEQ Executive Director or his designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken.

Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

Recordkeeping Requirements

15. Records as required in the special conditions of this permit shall be kept on-site for a minimum of three years and shall be made available to representatives of the TCEQ or any local programs having jurisdiction upon request.

Date: January 31, 2013

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 18773 and PSDTX118M4

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Polyethylene Facility:				
700	Rxn and Ethylene Purification Fugitives (5)	VOC	6.04	25.56
704	Analyzer Vent	VOC	0.22	0.96
705	Small Flare	CO	52.86	70.31
		NO_x	17.08	22.71
		VOC	48.34	62.49
707	Cycle Gas Compressor Seal and Lube Oil Vent	VOC	0.11	0.48
708	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01
		VOC	0.57	0.17
709	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01
		VOC	0.57	0.17
710	G-3 Reactor Sed Bed Vent	Polyethylene Dust	8.13	0.20
712	Catalyst Vent Filter	PM	0.04	0.01
		VOC	0.006	0.003
715	Pneumatic Conveyor Vent Filter	PM	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
716 - 717	Additive Bin Vent Filters	PM	0.02	0.01
716FF	P3 Pelleter Preblender Receiver	Additive Dust	0.13	0.08
717FF	P3 Pelleter Antiox Receiver	Additive Dust	0.13	0.08
718	Trim Receiver Vent Filter	PM	0.03	0.03
720	Pelleting System Dust Collector	PM	0.01	0.01
721	Pelleter Dryer Exhaust	PM	0.95	3.11
720, 722 - 724	Storage and Blend Bin Vent Filters and Pelleting System Dust Collector	PM	0.10	0.31
		VOC	6.44	18.53
725	Pellet Loading Vent Filter	PM	0.10	0.31
246	Large Flare	CO	22.69	2.10
		NO_x	4.45	0.41
		VOC	48.78	5.22
246	Large Flare Start-Up, Shutdown, and Maintenance	CO	280.63	3.65
		NO_x	55.07	0.72
		VOC	610.00	7.93
1239	Additive Hopper	PM_{10}	0.04	0.05
1240	Additive Hopper	PM_{10}	0.04	0.05
1241	Additive Hopper	PM_{10}	0.04	0.05
1242	Additive Hopper	PM_{10}	0.04	0.05
578A	Fugitives (5)	VOC (6)	0.049	0.216

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Olefins II Facility				
SD89	Fugitives - Product Ethylene (5)	VOC	5.81	25.31

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
CO - carbon monoxide
NO_x - total oxides of nitrogen
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(6) Propane and propylene emissions from pressure relief valves PSV-2008-62, PSV-2208-63, and associated piping.

Date: January 31, 2013